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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1991

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

ON

H.R. 5803/S. 3189

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF DEFENSE FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1991, AND FOR OTHER PURPOSES

PART 2 (Pages 1–529)

Commanders in Chief
Strategic defense initiative
Strategic programs

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CONTENTS

THURSDAY, MARCH 1, 1990

Page

Department of Defense:
  U.S. Pacific Command 1
  U.S. Forces Korea 43

TUESDAY, MARCH 6, 1990

Department of Defense:
  U.S. Atlantic Command 77
  U.S. Transportation Command 111
  U.S. Central Command 137

THURSDAY, MARCH 8, 1990

Department of Defense:
  U.S. Southern Command 201
  Special Operations Command 255

THURSDAY, MAY 3, 1990

Department of Defense:
  Office of the Under Secretary of Defense for Policy: Strategic nuclear deterrent of the United States 311
  Strategic defense initiative 389

THURSDAY, JUNE 7, 1990

Department of Defense: U.S. European Command 475

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1991

THURSDAY, MARCH 1, 1990

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9 a.m. in room SD–124, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, Leahy, Bumpers, Stevens, Garn, Kasten, Rudman, and Cochran.

DEPARTMENT OF DEFENSE

U.S. PACIFIC COMMAND

STATEMENT OF ADM. HUNTINGTON HARDISTY, USN, COMMANDER IN CHIEF, U.S. PACIFIC COMMAND

OPENING REMARKS OF SENATOR INOUYE

Senator INOUYE. This session this morning begins a series of hearings the subcommittee conducts each year to obtain the views of the senior U.S. force commanders, the CINC's. Our CINC's provide us an operational perspective on the military situation within their commands. These perspectives will be particularly important as we attempt to integrate wide-ranging military and political changes in the world into our consideration of the fiscal year 1991 defense budget.

First to appear this morning is Adm. Huntington Hardisty, Commander in Chief, U.S. Pacific Command. At the conclusion of his testimony, we will hear from Gen. Louis Menetery, Commander, U.S. Forces in Korea. But before we proceed I must remind everyone here that the meeting will be closed to those without top secret clearances.

When we scheduled this hearing we did not expect that it would coincide with Secretary Cheney's first tour of the Pacific region. The Secretary's tour highlighted many of the issues that have been central to U.S. security interests in the region for years, including burdensharing with Japan and South Korea and the posture of U.S. forces and bases overseas.

During his visit, the Secretary reaffirmed the U.S. role in the region. However, he indicated that the United States was redefining the composition of its forces in the area. The problems he faced during his tour, particularly regarding U.S. bases in the Philippines and the delicate task of withdrawing some of our troops from Asia, are continuing concerns to us in the Congress.

The pace of change in Europe should not divert our attention away from the dynamic Pacific region, but changes in the Soviet Union may alter the balance of forces in Asia. We already have some indications that the Soviet Union is scaling back its operations at Cam Ranh Bay and in its shipbuilding program. These are important, if preliminary, developments and they point to new opportunities for the United States military posture in the Pacific.

Admiral, on behalf of the committee, we are always pleased to see you. I welcome you, sir. In your written testimony you emphasized the changes in the world since you last appeared before us, and I look forward to hearing your views on what these changes mean for the United States politically and militarily in Asia. I would note for the record that as CINCPAC, Admiral Hardisty heads the unified command responsible for about one-half the world's surface, and his command stretches from the west coast of the United States to the east cost of Africa, from the Arctic to the Antarctic.

Your full statement, Admiral, will be made part of the record and you may proceed as you wish, sir. Before we proceed, Admiral, may I call upon Senator Stevens?

STATEMENT OF SENATOR STEVENS

Senator **Stevens**. Mr. Chairman, I am pleased to welcome the Commander in Chief of the Pacific and his staff. I recently had a briefing from that staff, so I feel I am up to date.

I do welcome him in a new role now as also the commander of the subunified command of Alaska. It is, as I told his staff and will remark again for the record here, rather unique that at the time of this great change, this southerner from the Pacific and northerner from the Pacific would just happen to be sitting where we are. So you are among friends, Admiral, and welcome.

Senator **Inouye**. He is trying to tell you that CINCPAC runs the committee. Please proceed, sir.

Admiral **Hardisty**. Yes, sir. Thank you, Mr. Chairman. With your permission, I would like to make just a few opening remarks verbally.

I am certainly pleased to be back here today to discuss the importance of the Pacific Command during an era of remarkable change. From a global perspective, the changes have been very positive, as nation after nation has thrown off the yoke of communism and dictatorship to experience freedom and democracy. But while dramatic change has swept both eastern Europe and the Soviet Union, the much publicized reduction of arms has not been reflected in the Pacific theater.

INTRODUCTION

There have been troop reductions along the Chinese border. The Soviets have begun to phase out obsolete equipment. And the Soviet navy is staying closer to its own shores because of budgetary constraints. But in the Pacific, 1989 saw democratic trends reversed in China, democratic government attacked in the Philippines, a dangerous and unpredictable regime still in power in North Korea, continued fighting in Cambodia, increased drug trafficking and refugee problems in Southeast Asia, and qualitative improvements in Soviet capabilities in the Pacific.

THE THREAT

I strongly support the reduction of global tensions, but threats to our long-term national interest still exist. The economic balance of the world has shifted to the Pacific, and our economic future is increasingly intertwined with the markets and resources of Asia and the Pacific. Regional instability could affect that economic future. Sources of potential instability abound. North Korean capabilities are still growing. Ethnic tensions and religious fundamentalism are on the rise. New regional powers are emerging. Trade rivalries are growing. And, finally, the Soviet military retains major capabilities in the region.

In short, while global threats are diminishing, regional instabilities still present valid security concerns. At the same time, our national interests remain unchanged, as do the moral values which produce our strong commitment to maintain our own freedom, security, and democracy, and advance the blessings of liberty and respect for human rights worldwide.

PACIFIC COMMAND STRATEGY

In order to accomplish these objectives, we must remain a global power, prepared to protect and advance our global interests. Based on these considerations, we have reviewed and revised the Pacific Command strategy. I have concluded that our present economy of force strategy, which relies on lean forward-deployed forces in the Pacific, is fundamentally sound. It provides us unique access and influence. It maintains an effective deterrent. It encourages stability for economic growth and it allows us to respond rapidly and decisively in time of crisis.

However, the focus of this strategy has shifted to emphasize regional stability, increased allied contributions, and expanded military-to-military contacts. Accordingly, some adjustments to our force structure can and should be made. My recommendations for such adjustments will be reflected in upcoming reports to Congress.

The essential element of this strategy for stability is the forward-deployed presence of high-quality people, strong, flexible forces, and the infrastructure required to support them. Any security adjustments we make must be carefully considered and fully coordinated with our allies. We must not repeat past mistakes which sent the wrong signal to our friends and adversaries as well.

Most importantly, any changes we make must support regional stability so that the savings we seek today are not paid for by future generations. Our economic future demands that the United States remain a Pacific power. For the first time in decades we see more opportunities in the world than threats. We must seize these opportunities to shape the future. Military forces of the U.S. Pacific Command will play a key role in maintaining regional balance and stability so that we can continue to enjoy the dividends of peace into the 21st century.

Thank you, Mr. Chairman.
[The statement follows:]

STATEMENT OF ADM. HUNTINGTON HARDISTY

Mr. Chairman, it is a pleasure to be here today to talk about the Pacific Command. You and the distinguished members of your committee have repeatedly shown interest in preserving America's vital security interests in Asia and the Pacific. As a nation, we have reason for pride in our successes in this region: Employing only about sixteen percent of the Active U.S. military strength, we have helped to maintain regional stability for over forty years in an area that encompasses half the globe. We have accomplished this through forward deployment, force readiness, and visible support for our allies and friends. With your help, I believe we can continue that achievement.

Much has changed globally since last year. We are more hopeful of a world free from the oppression of the old communist regimes and a world moving to reject criminal exploitation by drug cartels and dictators.

In the Asia/Pacific region, the U.S. strategy of containment has been successful and we are shifting our focus for the future from bipolar (United States-U.S.S.R.) to multipolar and regional considerations. With the exception of Europe, all the regional powers emerging in the multipolar world will be in or border on the United States Pacific Command (United States, Japan, U.S.S.R., China, India), the region is in a transition period with change as the dominant factor. Therefore, our focus is changing to best serve U.S. interests as we move forward into the next century.

We have three broad regional objectives for the future. First, we wish to maintain an overall environment of stability and regional balance in which democracies can flourish and economies can grow. This is best served by presence, positive involvement, security assistance, and by building trust and confidence. Second, we will want to continue to expand bilateral military-to-military relationships throughout the region where such relationships support U.S. security, economic, and political interests. Finally, we should maintain a deterrent posture where circumstances warrant; the Korean Peninsula is the prime example. These objectives will best support U.S. political, economic, and security interests and will carry us through the 1990's and into the next century.

To attain these objectives we must have forces that are combat ready; configured for rapid reaction and mobility; and positioned such that they can react across this vast theater in a timely manner to any crisis or threats to U.S. interests or citizens.

In addition to this focus on regional stability and balance, we also must keep our global war plans and capabilities up to date. The capability of Soviet forces, even in this uncertain period of promising developments inside the Soviet Union, demands that we do so.

Our Pacific strategy must deal with the realities of the region—diversity, change, increasing U.S. interests, and the need to maintain the confidence of our allies.

Asia and the Pacific are continuing a period of impressive growth. Old values and relationships are changing, and the balance of political, military, and economic power is changing as well. In the past, we were the dominant partner in the network of bilateral relationships and alliances that worked to maintain peace and stability in the Pacific. But now, some of our allies are our most vigorous economic competitors. Political developments across the region have nurtured new levels of nationalism that we must understand and appreciate as we work with old friends. Newly independent nations in the South Pacific watch us closely as they search for their own national identity and direction. We are operating carefully in this changing international environment, ensuring that we do not confuse our friends or undermine the alliance structures that have proven so successful in the past.

I will amplify the importance of Asia and the Pacific to future U.S. national interests, the threats to peace and stability that we face in the 1990's, and our approach for confronting those threats. I will sketch the critical roles played by our friends and allies in our strategy, and conclude with a brief analysis of the forces and key programs that we must have to accomplish our challenging mission.

IMPORTANCE OF THE PACIFIC

Throughout decades of change the United States has provided a stable, firm presence for freedom and security throughout the Pacific region. It is unquestionably in our interests to continue to do so as we look forward to the twenty-first century.

We have entered the century of the Pacific ten years earlier than we might have imagined. America's economic and political well-being are inextricably linked to the nations of the Pacific rim. The United States and Japan together account for 40 percent of the gross world product. U.S. trade with Asia and the Pacific has exceeded our trade with Europe for the past seventeen years, and is greater now than our combined trade with our North and South American neighbors as well. Today the Asian gross national product equals that of Europe and is growing at an average rate three percent faster than that of Europe. The United States' future economic success will be closely tied to economic success in Asia.

Almost two thirds of the world's population lives in this area now, and the number is growing. Democracy is advancing in general, but its final success is by no means assured.

Our national security interests directly reflect our regional economic and political ties. Militarily, the nations that maintain seven of the world's ten largest armies are within Asia and the Pacific region, and five of our nation's seven mutual defense treaties are with Pacific nations; we have additional formal security obligations to the Republic of the Marshall Islands and to the Federated States of Micronesia. The United States is and must continue to be a great maritime trading nation. The geography of both the Pacific and the Indian Oceans makes the area strategically important not just to the United States but to all the world's major economic powers.

Successful U.S. policy has nurtured positive, unprecedented change. we must now be ready to deal with this success.

THE THREAT

We applaud the recent easing of tensions in Europe and hope that this trend will continue until it embraces Asia and the Pacific. We are greatly encouraged by general Secretary Gorbachev's initiatives, by the exchange of visits between United States and Soviet military leaders, and by the vigor of ongoing strategic and conventional arms control talks. In my judgment, global war with the Soviet Union is less likely today.

We continue to work toward constructive engagement with the Soviets in the Pacific. As a step in this direction we hope to see United States-Soviet reciprocal port visits this year. In the future I look forward to hosting the Soviet Far East Theater commander in Honolulu and visiting his command in return. But progress toward peace in the Pacific has not completely paralleled that in Europe, and very real threats to regional stability still exist.

In Korea, our assessment of the potential threat from the north is unchanged. U.S. and allied forces in Korea stand together to face a strong adversary across a troubled border; but unlike the situation in Europe, no mutual force reduction talks are being conducted in Korea and warning time remains very short.

Allied Pacific nations continue to face internal and external enemies whose activities are often unaffected by changes in the Soviet Union. Insurgencies, terrorism, drug trafficking, ethnic unrest, and population and social pressures trouble this region just as they trouble the world.

Regional threats have changed somewhat, but they have not gone away. We must remind ourselves that unlike Eastern Europe where communist regimes are being replaced by democratic reforms—in Asia, repressive regimes and dictators have slammed the door on reforms.

Finally, the quantity and quality of Soviet military forces in theater remains formidable. This is not to say there has not been change—there has been retirement of older equipment, redeployment of some ground forces, and altered patterns of reconnaissance and operational activities. However, improved replacement equipment is being fielded and strong forces still remain in locations from which they can threaten our vital interests in Northeast Asia. Soviet power projection capabilities have qualitatively improved, and their modernization of strategic systems continues. Although their intentions appear to have changed, the Soviets retain significant warfighting capability in the Pacific region.

U.S. GOAL AND OBJECTIVES IN THE PACIFIC

Our overall goal is to provide a security umbrella for Asia and the Pacific under which U.S. national interests can be attained, democracies can flourish, free trade and commerce can prosper, and basic human rights can be preserved. To achieve this goal we seek access and influence in peacetime; we prepare to deter aggression in time of crisis; and, if U.S. interests, citizens, or allies are attacked or threatened, we are ready to respond promptly and decisively.

We envision a multipolar future world containing six major power centers. Five of those power centers border the Pacific Command:

—The United States; The major world player and recognized balancer in the region, but facing increasing pressures to reduce its presence due to economic competition and budgetary deficits.

—The Soviet Union: Facing an uncertain future with great internal tensions brought on by reforms and growing nationalistic and economic expectations of its people; with an external policy focused on attempts to "tap-in" to the Pacific and European economies.

—Japan: A producer state with prosperity highly dependent on continued access to resources and markets. The world's banker, maintaining significant influence over many of the world's industrial nations, but with an aging population and growing social pressures.

—India: The only regional power in the Indian Ocean in the absence of a balancing power.

—China: A regional power also. Modernizing economically, but slowly. Convulsed with a generational leadership change and internal political pressures. Nevertheless, pragmatic, independent, and beholden to no one.

As the world changes, the threats to our regional goals change. Accordingly, we have relooked our regional strategy for the future. In the Pacific, our past strategy of containment was based on a bipolar, global scenario. Such a worst-case condition cannot be completely discounted so long as the Soviet Union retains its current capabilities and its internal reforms set in motion are not completed. However, the most probable threats to peace in Asia and the Pacific now lie in other directions.

Multipolar, regional threats now require an increased emphasis on maintaining regional stability and balance. While there is no "NATO-like" multilateral defense structure in the Pacific to help us to achieve these objectives, we have successfully built a network of bilateral relationships by tailoring our approach to each of our security partners and friends.

Credible U.S. presence in potential trouble spots is one of the strongest stabilizing forces we can offer. The perception that we have the capability to respond quickly to calls from our friends and allies is a strong deterrent. Fortunately, the structure and positioning of U.S. forces in Asia and the Pacific that have been so important to the successful strategy of containment in the past also lend themselves ideally to protecting U.S. interests and citizens by maintaining regional stability. Most of our forces in the Pacific are light and highly mobile. They are easily tailored in size and composition to meet whatever threat arises. We have the necessary plans and forces in theater to provide flexible responses ranging from a show of force to sustained joint combat operations.

In 1989 we stood up our counternarcotics effort, which I have established as the Command's number one peacetime priority. We have made progress in our detection, surveillance, and monitoring missions through the activation of joint task force five and expect to make even greater strides as the task force's fusion center comes on line in mid-May. We have provided valuable reconnaissance assistance to DEA in their marijuana eradication efforts in Hawaii, and stand ready to support the U.S. Atlantic Command, the U.S. Southern Command, and the U.S. Forces Command in counternarcotics missions.

ROLE OF OUR REGIONAL FRIENDS AND ALLIES

Pacific regional security is a team effort, and we have in place an alliance network that has served as the foundation for security for four decades. But to continue to succeed, any partnership requires frequent assessment of mutual needs and concerns. The following is an assessment of some of the most topical concerns in theater:

JAPAN

The United States security relationship with Japan is the linchpin of our Pacific strategy. The Japanese are well on their way toward a self-defense force capable of meeting their commitment to defend the sea lanes out to 1000 miles. Airborne early warning, high performance interceptors, seaborne air defense, and anti-submarine platforms are the prerequisites, and all are being accommodated and upgraded in Japanese defense plans and programs. It is not in the interests of the United States or the stability of Asia for Japan to develop power projection capabilities. Such developments could foster arms races and instability throughout the region. Current developments in the Japanese self defense force therefore support its defensive mission under the Japanese constitution and are consistent with a mutually beneficial United States-Japanese security relationship.

However, even after achieving their self-defense goals the Japanese will be outnumbered in their own back yard by more powerful elements of the Soviet Far East military forces. They will need the continued help of U.S. forward deployed forces to achieve the mutual security objectives of both countries and the region.

Although our military relations are excellent, there are sensitivities. As I reported last year, on Okinawa there is limited real estate for expansion of the economy and therefore sensitivity to the presence of U.S. forces, the land we occupy, and the space in which we train. Japanese leaders realize the importance of U.S. forward deployed forces in the critical Northeast Asia region and support our presence, however, and we are working with them to make consolidations wherever possible and to resolve outstanding issues.

The Japanese have done much in the area of burdensharing—but I believe they can and should do more to help improve stability around the Pacific rim. We have been working closely with OSD to develop innovative cost-sharing improvements for the maintenance and support of U.S. forces, as well as to increase Japanese contributions to assist economic development, support peacekeeping, and combat drug trafficking. Our overall approach must be comprehensive but measured, and must not allow friction in trade or economic relations to undermine a security relationship that is vital to our long-term strategic interests. Maintenance of the close United States-Japanese security relationship and a Japanese self-defense force consistent with its constitution is vital to regional peace and stability.

REPUBLIC OF KOREA

The economic strength of Korea and its improved defense posture is an important regional development. The security situation remains uncertain, however, in spite of some encouraging efforts at North-South talks. The threat from the north has not diminished. Nevertheless, we have proposed ways in which the Koreans can assume greater responsibility for their own defense. While U.S. force presence will continue to be required in the 1990's as a proven deterrent to North Korean adventurism, it is time to transition to a more supporting role, reflecting the Republic of Korea's increased capability to provide for its own defense.

While South Korea is already contributing to the cost of maintaining our forces on the peninsula, we have proposed ways for them to increase their contributions. These initiatives include aircraft maintenance, construction, and labor cost sharing.

PHILIPPINES

The Philippines provide us vital facilities to train and sustain our forces and to protect critical sea lines of communication. We conduct sixty-five percent of our training in the Western Pacific in the Philippines; excellent training ranges and facilities at Crow Valley are not available anywhere else in the Pacific and would be extremely difficult to replace. These ranges/facilities also offer opportunities to improve interoperability with our allies. Logistically, Subic Bay gives us a large protected harbor with well developed ship repair, supply, and storage facilities, while Clark Air Force base has the runways, storage, and material handling capability necessary to handle supply throughput for Indian Ocean operations. There is no single location or combination of locations that can replace what we now have in the Philippines in terms of cost, strategic positioning, and operational efficiency.

I am cautiously optimistic that the Government of the Philippines and the U.S. will see it in their mutual best interests for U.S. military presence to continue in the Philippines beyond 1991. I recognize that we will face significant hurdles with the Philippines on issues such as assistance levels, criminal jurisdiction, security of our people, and unhampered military operations; nevertheless, I believe the negotiations stand a good chance of success because of the mutual benefit of the RP/U.S. relationship to both countries. The economic benefits for the Philippines and the strategic benefits for the U.S. make this a win/win relationship for both nations. As partners in forward positioning of U.S. forces, we share with the Philippines a major role in promoting regional balance and mutual security that is important to Asia as a whole. The December 1989 coup attempt temporarily diverted the Aquino government's focus from the renegotiation talks, but we already see evidence that they are preparing to enter negotiations.

In the event of failure to reach agreement for continuing access to the Philippine bases, we do have relocation alternatives. Clearly we prefer not to move; relocation would be more expensive, disruptive to U.S. command and control, take years to complete, and would not provide the same geostrategic advantages we now enjoy. Changes in our presence could raise questions among our friends in the area concerning our intentions and staying power, and could provide a vacuum into which others might try to move. but whether we relocate from the Philippines or not, protection of our interests in the region and fulfillment of our obligations to our friends and allies should remain unchanged.

NORTHEAST ASIA

China continues on a path of economic and military modernization, although at a reduced pace reflecting recent political events. The Chinese are key participants in many Asian equations: Sino-Soviet agreements could reduce border tensions; China is a consideration in any United States Asian strategy; tensions with Taiwan appear to be easing; China has demonstrated force projection resolve in advancing its claim in the Spratly Islands; we hope China will play an important role in the cessation of hostilities in Cambodia; and China-India talks are an encouraging sign.

Despite the bloodshed at Tiananmen Square and follow-on United States Government sanctions, I believe that China will continue to look to the West for the technology and expertise it needs. As a fundamental feature of our policy in Asia, the U.S. should continue a relationship with China that offers clear mutual benefits for China's return to peaceful development and encourages Chinese leaders to steer a course that supports stability throughout the region.

SOUTHEAST ASIA

The Asian nations continue to progress in political and economic cooperation. We have developed strong and viable bilateral friendships with the armed forces of each of these nations. Mutual defense arrangements with Thailand and the Philippines and enhanced security cooperation with Singapore underlie our commitment to stability in the region.

In Vietnam, we have reason to hope that our joint progress on MIA issues will lead to continued improvement of relations between our nations. The Cambodian conflict remains a destabilizing factor in the region. We continue to support the efforts of Asian countries and the United Nations in their initiatives to provide a comprehensive solution to that conflict and to restore peace and human rights.

Thailand remains our staunch ally bordering a communist dominated Indochina. The U.S.-Thai military relationship has continued to grow; we have greatly improved our interoperability with Thai armed forces as exemplified in Cobra Gold, a joint/combined exercise that is now the largest such training effort the U.S. conducts in Southeast Asia. The war reserve stockpile program, which we signed with Thailand in 1987, has been implemented and will enhance the Thai armed forces' capability to sustain combat in defense of Thailand. Under the terms of this program the U.S. and Thailand will establish a joint stockpile of munitions for use by all services of the two countries. We are also cooperating closely with the Thais in the establishment of a new air defense system, and providing them limited security assistance funding. These activities are tangible evidence of U.S. commitment and resolve to maintain our important friendship with Thailand. Thailand plays a critical role in any counternarcotics effort in Southeast Asia and our security relationship fosters Thai cooperation in that effort.

INDIAN OCEAN/SOUTH PACIFIC

Our alliance relationship with Australia is very close and will remain a partnership based on shared goals and interests. The Australian Government remains committed to deterrence and arms control through participation in joint facilities and the granting of access to U.S. ships and aircraft. Our bilateral relationship with Australia under the Anzus Treaty remains a cornerstone of stability and peace in the South Pacific and Southeast Asia. I am encouraged by the existing strength of Australian-U.S. relations and its bright outlook for the future.

In implementing our strategy we must continue to focus a significant level of attention on the South Pacific. Disaster relief efforts, civic action projects, and various security assistance programs are serving our mutual interests and providing much-needed training opportunities and secondary benefits to the island countries. We are increasing ship visits throughout the Pacific to maintain U.S. access and influence and to promote U.S. interests in this area. We are concerned over efforts to form a nuclear free zone in the South Pacific and to challenge U.S. nuclear disclosure policies.

Regrettably, the government of New Zealand's ship ban policy caused us to suspend our security obligation to New Zealand under the Anzus Treaty. It's a sad thing to happen between old friends and allies, and the result is diminished security in the South Pacific and elsewhere. We look forward to the day when we can return to trilateral cooperation under the Anzus Treaty, but not at the expense of our "neither confirm nor deny" policy. In the meantime, our regional alliance interests reside in the strong bilateral security relationship between the U.S. and Australia.

India continues to grow militarily as a major, non-aligned power in the region. India's military buildup in both defensive and offensive systems, mostly of Soviet origin, is impressive. While the Soviets continue as their major arms supplier, India is a democratic country with vital interests in a successful relationship with the West. There is mutual benefit in more extensive and generally improved military-to-military relations between the United States and India. An improving relationship between India and the United States should not be cause for concern among our other friends in the region. Because the U.S. Government recognizes the potential India holds for being a stabilizing force in the region, we are expanding our defense contacts with India to enhance prospects for mutual cooperation.

WHAT DO WE NEED?

The keys to achieving our goals in Asia and the Pacific are combat ready, properly equipped and properly positioned forces, and a network of healthy bilateral relationships. Particular areas of concern to me are:

(1) Crisis response, force projection, and conflict operations—essential to the success of our defense policies are U.S. conventional forces—high quality forces that are trained and ready to fight; capable of force projection whenever and wherever required; and supplied and sustained with equipment and weapons that will be able to counter a numerically superior enemy or one equipped with advanced weapon systems.

With some adjustments, our current force structure is appropriate for our strategic objectives in Asia and the Pacific independent of force level changes on Europe's central front. But the Pacific is already an economy of force theater; we must be cautious and deliberate in addressing changes in our forward deployed force strength. Small reductions send signals far out of proportion to any real savings.

(2) Force deployment—to enable us to move promptly and decisively and reinforce or resupply as necessary, maritime superiority and strategic lift are critical. We must have the ability to protect our lines of communication from air, surface, and submarine threats under all contingencies, along with the strategic and tactical lift necessary for us to get to the crisis area in a timely manner.

(3) Command, control, communications and intelligence (C^3I)—our defense posture requires C^3I resources adequate to prevent surprise and capable of the timely direction and control of our forces. The capability to assess developing situations early and accurately is basic if we are to provide timely response across half the world's surface, and our readiness is highly dependent upon our ability to monitor and control military response to crisis situations.

(4) Support to allies—a security assistance program with appropriate flexibility and less earmarking provides us enormous dividends in sustained influence and access to our Asian and Pacific allies. Cooperative programs, combined exercises, international military education and training, and humanitarian and civic assistance under title 10 generate remarkable political-military benefits at low costs. These are extremely cost effective methods of maintaining access and influence. Continued congressional attention to these programs is necessary.

CONCLUSION

Our Nation's strategy of forward deployed forces, bilateral alliances, and military-to-military contacts has worked for many years in the Pacific. Our security posture today is in good shape. We have high quality, well trained, well equipped men and women in our Armed Forces, and strong relationships with our friends and allies.

We recognize the changes in the world, and we have taken the initiative to change our focus for tomorrow in a way that will continue to support our Nation's fundamental interests in the Pacific; peace, prosperity, economic security, democracy, and support for human rights. But perceptions are critical: we must ensure that we make no adjustments in our posture that would weaken the confidence of our friends in the area and draw into question our resolve to remain a power in Asia. Stability is fundamental to our achievement of our goals, and in the Pacific more than in any other region security relationships are a foundation for our political and economic influence.

Economic, political, and military trends all show that a stable and secure Asia and the Pacific will be central to America's future. The U.S. Pacific Command is an economy of force theater, with forces well positioned and configured to maintain regional balance and stability. We achieve tremendous benefits shared with our allies and friends from access and influence for relatively little cost.

Finally, I must compliment the finest force of all volunteer soldiers, sailors, airmen, and marines that I have seen in my 38 years of military service. The men and women of the U.S. Pacific Command are maintaining impressively high levels of readiness, dedication, and skill. I am proud of them and believe we owe them our full support, especially in the pay incentives and quality of life programs that are so necessary to retain our most valuable resource—our people.

Speaking of top quality people, I must tell you that Goldwater-Nichols is working well. We've seen a complete turnaround at CINCPAC headquarters—the services are sending us some of their very best. The promotion rates attest to this, and Goldwater-Nichols can take full credit for this excellent change. The impact on our interoperability and joint operations has been equally impressive.

The administration, the Congress, and the American people can be proud of the accomplishments of the men and women who serve in the U.S. Pacific Command. I am convinced that we need to continue our forward basing and must strengthen our bilateral relationships throughout the region to ensure that the resources and markets critical to our economic growth remain available, and so that we can maintain our political and security leadership roles in Asia and the Pacific into the twenty-first century.

Senator INOUYE. Thank you very much, Admiral. There are so many questions that we would like to ask, I just do not know where to begin.

PHILIPPINES

But since this is a closed hearing, can you give us a situation report on the Philippines?

Admiral HARDISTY. Yes, sir; I certainly can. As you know, Secretary Cheney had a good visit to the Philippines even though he did not see President Aquino. I have had hearings for the last 2 days, and that subject came up frequently. I am very concerned with the situation in the Philippines. I see a lot of posturing. I see a lot of agreeing to disagree without looking at the fundamentals of why we want to be in the Philippines. There is a lack of public appreciation or support on the part of the Philippine Government for continued United States presence.

Privately, when I talk to General Ramos, General DeVilla, or when I call on Mrs. Aquino, I come away feeling very good; they want us to stay. In recent polls 70 percent of the people in the Philippines want the United States to stay. I see us going down a slippery slope. The security situation is pretty grim. We have not had any military people killed lately. There was an American civilian killed several days ago but that was more of a political issue.

The security situation is bothersome. The Philippine Armed Forces must take over more responsibility for our security. I encourage them to do that. We have made great progress in that area in the last 2 years, but we will have to do more. If [deleted] it is going to be a self-fulfilling prophecy. We will end up coming out of the Philippines. I am convinced that is the mood of the country. It is the mood of Congress; I think it would be a terrible mistake.

The rest of ASEAN, including Northeast Asia, want the United States in the Philippines. Of course, there is the burdensharing issue and the question of whether we can afford to stay in the Philippines.

We are in the Philippines for our own interest, as well as Philippine interest. We are in Southeast Asia for our own economic interests; I believe economic factors are going to be the driving factor over the next 10 to 15 years, whether it is in Northeast Asia or Southeast Asia.

I am optimistic that we can get an agreement. I would not recommend that we accept an' agreement for less than 10 years. That will buy us time to adjust in the rest of the Pacific. We may restructure in Korea and adjust with our relations with Japan. Ideally we would like a 25-year agreement.

There are innovative ways to get that agreement other than paying rent or compensation. In my judgment there is not going to be additional compensation appropriated by Congress. We have about maxed out on compensation, if you will. So we have got to look at other ways.

I think we can take a functional approach to the bases. What are the basic functions that we need and why do we need to be there? We can go with more joint use of the facilities. We have offered joint use to the Philippine Armed Forces, time and time again, beginning in 1977 and 1978. In those negotiations, we offered to build a dedicated pier for the Philippine Navy at Subic; but the Philippine Navy did not want to come to Subic. They have their hands full with the status quo. It is the same situation with the Philippine Air Force. When people say move the Philippine Air Force to Clark and the Navy to Subic, they should know there is not much of a Philippine Navy or Air Force to move.

That is not meant to be critical. I mean, their assets are limited. The majority of their armed forces are in the Philippine Army. That is probably right today with the insurgency problem.

In regard to the insurgency, people ask why didn't the NPA take advantage of the last coup. I do not have a good answer for that. The NPA is losing some of their popular support from the masses in the country. A couple of the actions they have taken have backfired on them. They are biding their time to see what happens as we start into the base negotiations, and determine how they can exert their influence.

The Armed Forces of the Philippines has been doing very well. They have increased their mobility, their maintenance, and sustainability over the last 2 years. We have worked very closely with them on those issues. Those issues are the key to controlling the insurgency. I believe they do have it under control. In my judgment they will not win a military victory for a long time. It has got to be an economic victory. They have to offer the people some alternative to the NPA. This includes an improved quality of life and standard of living. Over 50 percent of the people in the Philippines live below the poverty level.

But again I am optimistic. We are good friends, longtime friends, Mr. Chairman. We have a need to be there. The rest of our friends and allies in Southeast Asia want us there. Prime Minister Lee in Singapore supports us. I was in Thailand week before last. [Deleted.]

To the Philippines' credit, they are the only Third World country paying the interest on their foreign debt. They are making these payments while Mrs. Aquino is being criticized as not being a strong leader, surrounded by corruption and graft, et cetera.

There is a pretty good success story there. The democratic process is flourishing although fragile. The first year saw a 5.5-percent growth, next year 6.5. This latest coup set them back. Their continued growth should be about 5.5 percent. That is pretty significant, when they put out almost 40 percent of their GNP to pay off the interest on their foreign debt.

BASE AGREEMENTS IN PHILIPPINES

I guess that wraps it up, Mr. Chairman.

Senator **Inouye**. I note that you are rather optimistic, but in all of the reports we have seen Secretary Cheney is a bit pessimistic about the base agreements. Do you agree or disagree with that?

Admiral **Hardisty**. I would not argue that point. There are many people in the administration and in Defense who are concerned. We do not want to be in the Philippines unless they want us there. If they continue their political posturing they are going to have a self-fulfilling prophecy. We are not going to have a gun held to our head. We do not want to be any place where we are not welcome. We can pack up and go tomorrow if we have to. We have a plan to do just that.

We can be out of there in a year. There are alternatives to the Philippines. They are not good alternatives particularly for the training we do in the Philippines. Seventy percent of all the training of our Armed Forces in the western Pacific is done in the Philippines. It is the only place other than Alaska where you can do live fire, combined arms training. Crow Valley, which is a complex air-to-ground range, air-to-air range is comparable to Red Flag at Nellis. Those training areas are going to be awful hard to replace.

Getting back to looking at functional things, we could possibly make some arrangements to retain our access for training and other support. Secretary Cheney's pessimism, if it is that, may stem from the fact that we are not seeing enough public support at high governmental levels. Rather we are seeing excessive political posturing.

I think the United States is maxed out on compensation. The Filipinos must realize that it is in their best interests for us to be there. I think the responsible people believe that. We must realize 1992 is an election year. We hope to have negotiations completed early in 1991 so that the bases do not become an election year issue. However, they are already an election issue. Thus we will see a lot more political posturing.

ENDEMIC PROBLEMS IN PHILIPPINES

Senator **Inouye**. As you know, Admiral, this city is a city of rumors, and there are many going around at the present time. One suggests that as a result of President Aquino's rebuffing of our Secretary it has further weakened her position, followed by the arrest of the former Defense Minister. So we are told through the rumor mill that we should anticipate another coup in which she may not make it.

Is that worthy of consideration by us?

Admiral **Hardisty**. Yes, sir; you certainly have to think about it. In my testimony yesterday I was asked about the likelihood of another coup. [Deleted.] Mrs. Aquino has had strong support by the Armed Forces of the Philippines. Although there are endemic problems within the armed forces, there are also endemic problems [deleted] in the Government [deleted]. Mrs. Aquino has apparently decided to be decisive. I do not think she would have done this without the backing of the Armed Forces of the Philippines [deleted]. I think Ramos is with Aquino. They have put their foot down and are going to see how this plays out.

SECRETARY CHENEY'S VISIT TO THE PHILIPPINES

Certainly not seeing Secretary Cheney was very unfortunate. Secretary Cheney is a very respected former Congressman as well as Secretary of Defense. He delivered a message of our strong support, not seeing him is incomprehensible.

There was a Filipino Cabinet meeting discussing the forthcoming visit of the Secretary. Their discussion was on the front pages of the Manila Times the next day. I think Mrs. Aquino's hands were tied. About 50 percent of the Cabinet said you must see him, and the other 50 percent said he should see Manguapos and Ramos. You do not need to see him.

I think Mrs. Aquino would have seen the Secretary if this did not appear on the front page of the Manila Times. [Deleted.]

Senator **Inouye**. Admiral, I have many other questions, but I know that my colleagues all want to get involved in this.

Senator Stevens.

UNITED STATES INTEREST IN PHILIPPINES

Senator **Stevens**. Well, I am compelled to pursue that line of questioning just for a minute or two, Admiral. Other than strategic location for our forces, what really is our interest in the Philippines now?

Admiral **Hardisty**. The infrastructure and the investment that we have there, as well as the strategic location. It is also the signal we send to our allies about our staying power. [Deleted.]

If we walk away, someone else is going to fill the vacuum. Today that may well be Japan. That is a great fear in Southeast Asia. They have a long memory. Japan is already economically dominant in the region. They do not want Japan to militarily dominate the region.

We have a growing India. We have an India-Pakistan-Kashmir problem. We have Cambodia. We have Vietnam. I mentioned religious fundamentalism. I mentioned ethnic rivalries. And then I mentioned the economic factor.

We need to stay in the region because we are the honest broker. We provide the stability and the security in the region. That is well recognized. As you have said, Senator, our Northeast Asia allies have got to recognize this and do more toward the cost-sharing of the United States investment there.

To replicate the facilities in the Philippines is very difficult. It will be very costly. With our budget deficit, we will not be able to afford the kind of new facilities we need unless we come back to the United States. I still believe in the Pacific we get a lot of bang for our buck. I have 7 percent of all the end strength of the Armed Forces covering 50 percent of the world. If you want to up the ante and include your State and Hawaii, it is 16 percent, including the west coast.

We are already an economy of force. I think the investment is a very wise one. We want to remain a world power. We are a maritime nation. We are going to be as dependent upon international trade as Japan or any other country in the region, Senator Stevens.

Senator **Stevens**. Well, I would say it publicly. I do not care whether it is classified or not. My mind goes back to the old flag: Don't tread on me. I have got to tell you in my judgment, regardless of the political affiliation of the Secretary of Defense, when he was snubbed it is my judgment that a significant portion of the military should come out of the Philippines now. And if you do not do it, you are going to lose it all.

I do not think she should have any vascillation at all as far as we are concerned. They should know that unless they come around and say they want us, they are all going to come out. I think something significant should come out of there, and say the next time we are going to take something else out. There ought not be any vascillation. I think the whole Pacific is watching to see what we do and how we are going to react to what she and her colleagues are doing.

And if the Filipinos think that the American taxpayer is going to keep forces there to maintain their stability and they are going to be spit on while they are there, they are wrong. I just think we have got a substantial problem there.

I know you have got a lot of concern about the area strategically. As long as we have Diego Garcia, you do have a functioning point well into your responsibilities as far as the gulf is concerned, right?

Admiral **Hardisty**. Yes, sir.

DEPLOYMENTS IN THE PACIFIC

Senator **Stevens**. You do have alternatives to the Philippines, and they are already programmed or planned. You have alternative plans to deal with our deployments in the Pacific should we have to abandon the Philippines altogether?

Admiral **Hardisty**. Yes, sir; we do.

Senator **Stevens**. As we are looking at these numbers now and we see them in the paper and hear them in the media concerning Central Europe and Europe in general, have there been any numbers that have been tossed out and agreed to between the United States and the Soviets or SEATO or anything in terms of maximums in the Pacific?

Admiral **Hardisty**. No, sir; we have not gotten into those discussions with the Soviets, to my knowledge. I have made my recommendations on looking at the realities to the Secretary. So has General Menetrey. I understand they have been well received by the Secretary.

He announced in Japan that we are going to reduce our Pacific forces by 10 to 12 percent, and that CINCPAC will be making recommendations on these reductions, subject to approval of the NSC and the President. Those are the only numbers under discussion. We are looking to build down the force in a smart way.

We have relocated our C–130's and some 800 people out of Clark to Yokota and Kadena. The fiscal year 1991 defense budget includes the removal of United States presence at three Korean bases: Taegu, Suwon, and Kwangju. That will take [deleted] Air Force personnel out of Korea. Secretary Cheney has talked about [deleted] Army coming out of Korea. He said we should hold the line at that. Our intelligence and warning is very key to the defense of the peninsula, as is our Air Force.

With that I am at the minimum of my Air Force combat capability. We have looked at Army restructuring in the Pacific. I think it is key that I retain three divisions—the 6th in your State, the 25th in Hawaii, and the 2d in Korea. I want to use these divisions more in a regional role than perhaps we do today. The 2d Infantry Division in Korea is going to be restructured. [Deleted.]

As to how long we will stay in Korea, I cannot say. We need to be there as long as they want us there and as long as there is a threat from the North Koreans to the stability of Northeast Asia. That does not mean we should not put them more in a leading role for their own security. We will adopt more of a supporting role.

This will be in the April 1 report to Congress. Secretary Cheney has laid the markers down. That is about as much as he has announced publicly, and I do not want to get ahead of the Secretary, Senator Stevens. I think you are going to be pleased with the plan. I believe it shows good movement and good judgment. As events unfold, there is more we can do.

OKINAWA

Senator **STEVENS**. I have not heard anything about Okinawa. Have there been any comments about Okinawa?

Admiral **HARDISTY**. Sir, there would be a drawdown of another [deleted] people out of Okinawa. I do not want to take them out of mainland Japan. The reason for that is basically my air forces at Misawa. I do not have many forces on mainland Japan other than the 7th Fleet and the air forces at Misawa. There will be some minor Air Force adjustments at Kadena. There will be some Marine Corps and Navy adjustments in Okinawa as part of this 10 to 12 percent.

I have about 120,000 military forward deployed, so we are talking numbers of 12,000-plus, Senator.

Senator **STEVENS**. Thank you very much.

Senator **INOUYE**. Senator Rudman.

Senator **RUDMAN**. Thank you, Mr. Chairman. Good morning, Admiral Hardisty. We are delighted to have you before the committee.

JAPAN

We are faced with a number of very interesting, I would call them geopolitical, decisions over the next several years. One of the most important ones seems to be, at least in my view, some ambivalence as to what we think collectively, particularly sitting here in a closed hearing, the role of Japan should be in our entire western Pacific strategy.

I have observed over the last year, from some of Japan's neighbors, who, as you stated earlier, do have good memories, a real concern about the United States attempting to get Japan to undertake more of the role that they have under certain obligational treaties we have with them and a concern that as the United States draws down the Japanese would assume more of a front-line role, if you will, on both air and sea, certainly.

There are great concerns in some of the military of those nations that I speak of—and I expect you have spoken to the same people—that if, in fact, we encourage them to do just that and at the same time there is a United States force reduction in the Pacific, the western Pacific in particular, that here you will combine an enormous economic power, the size of which most Americans do not even understand how powerful the Japanese economy is today. I guess the 10 largest banks in the world, 1 through 10, are now all Japanese. I think there were two of them 10 years ago. I think the United States is down around 14th for the first time in the register.

But just looking at their economic power and now you combine it with a resurgence of military power, and some nationalism within Japan, and looking at history people get very concerned about that. I mean, how far should we push the Japanese to increase their defense forces—theirs, not supporting our infrastructure but theirs? And ought we not to pay some attention to some of the concerns of some of our neighbors, our allies, if not neighbors, in the western Pacific?

Admiral HARDISTY. I certainly agree with what you are saying, Senator Rudman. Japan is doing what we have asked them to do. They put about 1 percent of their GNP into defense, but with such a large GNP, they will be the third largest defense budget in the world. More than West Germany and the United Kingdom, exceeding them for the first time. They have some $30 billion in their defense budget.

We have asked them to protect their sea lines of communication out to 1,000 miles. And we have asked them to do more in their own defense. Under our Mutual Security and Cooperation Treaty, they are filling some gaps in my forces. We complement each other in our operational capabilities and plans.

COST SHARING—JAPAN

Japan has done all the things we have asked of them. I am not one who would say put 3 or 4 percent of the Japanese GNP into defense. Sometimes that is misunderstood when we talk about more cost-sharing. The commander of the 7th Fleet was quoted out of context recently as saying we do not want them to pay more than 50 percent of the cost for United States people in Japan because they will have too much control. He was asked a different question. Fred Hyatt took that out of context.

We do want Japan to pick up more responsibility for the cost of stationing United States forces in Japan. I think they are willing to do that. We have had consultations with them. They have increased their support for our presence in the Facilities Improvement Program and labor cost-sharing by 27 percent over the last budget. We hope ultimately that Japan will pick up all the appropriate yen-based costs for the United States presence.

We believe that without renegotiating the SOFA, Japan can pick up all the labor costs and help us in O&M accounts. I feel that Japan is willing to do that.

POWER PROJECTION—JAPAN

Senator Rudman, you eloquently stated it, the view of our friends and allies is their fear about Japan. Constitutionally I do not see Japan wanting to develop a power projection capability. That is everyone's fear in the western Pacific. We consult with them very closely on their 5-year defense plan. The new 5-year defense plan tracks right down the road and will buy the right kind of things. It will improve sustainability, tanking for their Air Force, and provide a real ability to defend their sea lanes out to 1,000 miles.

They certainly have a quality military force. Our interoperability with them has never been better. If you had told me 5 years ago we would be doing combined operations it would have been hard to believe. They learn unification and jointness from the United States. We do other things jointly and we do them very well together.

From my personal contacts with their highest military and government leaders, I sense no impetus to develop a power projection capability or go against their constitution. They could well be forced to fill the vacuum created by lack of our staying power. They may unilaterally have to protect their own interests with a larger self-defense force. They will build a large military if they have to do that.

Senator **Rudman**. We are going to have, evidently, a shortened hearing because of caucuses that are being held, I have been advised, so I am going to just ask one brief question so that my two colleagues will get at least their 5 minutes.

FORCE STRUCTURE

I just want to ask you this question. Hearing the discussions here in the Senate and also over in the House concerning U.S. military, my own guess is—this is just speaking for myself; I have no hesitancy in making predictions because nobody bets on them—that the U.S. forces, by 1995, will probably be around 1.6 million. That is my guess. That is down from the present 2.2 million.

If that was hypothetically true, it seems to me that there is still no reason to reduce our Pacific forward projection force structure much below the 100,000 or 120,000 it is at now, for the simple reason that we want forces located in various parts of the world. We have a lot of infrastructure not only in the Philippines but certainly at Pearl Harbor, and other places in the western Pacific, in Japan. So if we had major drawdown of personnel caused by budget constraints and a reduction of the threat, would it not be still prudent U.S. policy to maintain force structure at about the levels they are now, maybe not in exactly the same places as we have in the Pacific under your command?

Admiral **Hardisty**. I would certainly agree with that, Senator Rudman. On the postulation that we might leave the Philippines we have a modest initiative with Prime Minister Lee. We have ongoing negotiations on increased U.S. presence in Singapore. [Deleted.] If we had to leave the area it is better to go forward, if it is a good strategic location.

With some 50 percent of the Earth's surface in a maritime AOR, we do need those forward-deployed forces for regional stability. They can influence [deleted].

We are an economy of force in the area. We are a military command that has recognized the world has changed. We are changing the status quo in the Pacific. We have to make adjustments. We must be innovative. We have got to be more efficient. I am looking into the possibility of cutting my staff as much as 30 percent over the next few years. I would rather cut headquarters support than combat troops. We are going to find ways to tighten up, we are going to use Alaska more, Senator Stevens, with the potential as the greatest training area in the world.

Senator **Rudman**. Do not tell him that, Admiral. We are going to have to fight with him again about how much we are going to appropriate for Alaska this year.

Admiral **Hardisty**. Oh, OK.

Senator **Rudman**. Thank you very much, Admiral. I was just thinking as you were talking. You know, if we have to move out of some of those western bases I am sure Senator Inouye would not mind if we based some of our ships in Maui or the big island of Hawaii and then the subcommittee could certainly visit and have close oversight as to what you all are doing out there.

Admiral **Hardisty**. Well, we certainly look forward to seeing you any time, Senator.

Senator **Inouye**. Before you do that, get some housing.

Senator Kasten.

BASE RELOCATION STUDY

Senator **Kasten**. Admiral, first of all I want to associate myself with the comments of Senator Stevens. I think that what happened in terms of American public opinion over the last several days with regard to Secretary of Defense Cheney, particularly because it was only weeks ago that we ended up by providing Air Force cover for Mrs. Aquino. People, at least in Wisconsin, understand that and they are very, very concerned and confused about what in the world we are doing there.

You said if they want us out of there, we will be out of there in a year. Could you just give me a brief summary of what you would do during that year and what your options are with regard to the fallback? Let us say that today we decide that the year begins right now, on March 1, 1991; you are out of the Philippines; where are you?

Admiral **Hardisty**. Yes, sir. We submitted a base relocation study which the Secretary of Defense submitted some few months ago to the Congress. I pulled that study together in the last 16 to 17 months. If the time clock starts September 1991, we will be out of the Philippines [deleted] 1992. Our plan is feasible. We have the assets and the amount of sealift to pull out, Senator Kasten.

We would make adjustments and relocate those forces elsewhere. I would like to keep them in the Pacific because we are an economy of force area already. [Deleted.] We had planned to relocate some of the forces from the Philippines to those locations. It kept them forward and it made good sense.

Thus we have a political wicket there that we will have to go through.

Senator KASTEN. If I could interject, that is what I do not understand, because on the one hand you are talking about drawing down those forces, but, in fact, if we left the Philippines we would not draw down or we might take certain people out but add back in. Is that what you are saying?

Admiral HARDISTY. What I am saying is I would like to keep the forces in the Pacific. I would like to keep some of them forward-deployed in locations such as [deleted]. Singapore cannot replicate Subic, nor could we move to Thailand, Senator Kasten. [Deleted.]

So we would fall back to Guam. We would fall back to Hawaii. We would fall back to Alaska and to the west coast. We have plans to do that.

Senator KASTEN. And you would not reduce your forces [deleted] as you are now saying that you will do?

Admiral HARDISTY. No; we will continue to do that. The April 1 report to Congress will give you the plan that I talked to——

Senator KASTEN. With or without the Philippines?

Admiral HARDISTY. With or without the Philippines. We will be adjusting forces in the Philippines as part of this plan, and, of course, all of the forces out of the Philippines if we had to leave.

Senator KASTEN. Thank you, Mr. Chairman.

Senator INOUYE. Senator Cochran.

Senator COCHRAN. Thank you, Mr. Chairman.

Admiral Hardisty, welcome to the committee, good to see you again.

Admiral HARDISTY. Good to see you, sir.

JOINT TASK FORCE 5 AND DRUG INTERDICTION

Senator COCHRAN. I notice in your statement you mention the activation of Joint Task Force 5 and your counternarcotics efforts. Most people tend to assume that all of our problems with narcotics is with our friends in Latin America as a source for illicit drugs. Could you tell us about this problem in your region and tell us what the role of the Joint Task Force 5 and other assets that you have in the drug enforcement effort in the region?

Admiral HARDISTY. Yes, sir; it is my highest priority peacetime mission. Most of the heroin that comes into the country comes out of the Golden Triangle. That is the Burma-Laos area, northern Thailand. That is the big problem, along with marijuana that flows in from the Pacific.

Joint Task Force 5 is set up at Alameda, CA. We have fused the intelligence operation. We have combined DEA, Customs Liaison, and our military in one location. We have developed an intelligence architecture network where we are now sharing common data bases with other Government agencies as well as the military.

We have gotten some breakthroughs with the Attorney General and Supreme Court decisions on being able to improve the kind of surveillance we need to do in order to pick up drug runners. I am talking about signals intelligence and those kinds of things.

I have a tremendous problem in the Pacific; our success rate is not very high. On any given day there are 5,000 ships at sea in the Pacific. Our estimates are there are 24 to 36 mother ships that bring the heroin out. They transship it through various island locations to smaller ships that then make their way to the United States.

[Deleted] without a lot of cooperation with host countries, I am looking for a needle in a haystack. The success rate in the Caribbean and other places, because of choke points, is much better. It will continue to be better because there are fewer ships and more of them are carrying illegal narcotics, so the opportunity to surveil and intercept is higher.

[Deleted.] We work very closely with JTF-6 along the Mexican border. We work with General Thurman and SOUTHCOM. Part of my AOR, CINCPACS area of responsibility, includes the west coast of Mexico. We are actively involved in a joint way in that area.

We have had some success. [Deleted.]

Our ships and people will be very involved. If the patterns of drug flow change we will be more involved off the Pacific west coast and off the coast of Mexico.

CONCLUSION

Senator COCHRAN. Thank you very much. Let me compliment you on the quality of your statement. I have been impressed with some of the comments that you have made here about the importance of the region and our trade relations throughout that area and the growth projections that are associated with the economy in that region of the world. It makes it just very obvious, I think, to all of us how important the work is that we are doing there in terms of bringing stability and trying to improve relationships and the constructive engagement, as you put it, with the Soviet forces and theater commanders in that region. I compliment you on the work you are doing.

Admiral HARDISTY. Thank you very much, Senator.

Senator COCHRAN. Thank you, Mr. Chairman.

Senator INOUYE. Admiral, we wish that we could be here for many hours, but, as Senator Rudman pointed out, both parties are having important caucuses this morning.

Before we part I would like to make an observation and you need not agree or disagree. I have watched, like all of us, the events in Europe of recent vintage. But as far as the Pacific is concerned I have seen ships being decommissioned but these ships are already scheduled to be decommissioned long before the wall came down. These were ships that were built in the late 1950's and early 1960's. They are now being replaced by ships that are highly modern and well equipped and technologically capable of giving us a lot of trouble.

Second, notwithstanding reduction of tension elsewhere, strategically their forces have been improved in the Pacific.

Third, the euphoria that we find in Europe has somehow not infected the Chinese or the North Koreans or the Cambodians.

Fourth, notwithstanding some statements, [deleted].

Fifth, I am concerned about what is happening in the Philippines.

Sixth, [deleted].

Like you, I agree that now is not the time to be precipitously leaving the Pacific. If anything, we should do it with some caution.

I do hope that in the reduction of forces we are sitting down and conferring with our host countries because otherwise it would send a very negative message.

With that, Admiral, I thank you very much. We will have to call upon the General now and regretfully ask him to cut down his presentation also.

Thank you, Admiral.

Admiral **Hardisty**. Thank you, Mr. Chairman, thank you, members of the committee. It was a great honor and pleasure to be with you today.

ADDITIONAL COMMITTEE QUESTIONS

Senator **Inouye**. We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO ADMIRAL HARDISTY BY SENATOR INOUYE

East Asia Strategy Initiative

Question: Admiral Hardisty, the Executive Branch has just concluded a major review of our national security requirements and strategy in East Asia and the Pacific. Your statement says that we are shifting our strategy focus for the future from bipolar (U.S.-USSR) to multi-polar and regional considerations. What are the principal conclusions of this major East Asia Strategy Initiative? What should be the U.S. strategic goals in East Asia? How do these conclusions differ from our past strategy?

Answer: The FY90 Defense Authorization Act required that the Secretary of Defense review and report to the Congress on U.S. policy and strategy in Asia and the Pacific. The report is due to the Congress on 1 April 1990. I participated in the policy review, and support its conclusions. It is, however, appropriate that the answer to this question await the delivery of the report to the Congress.

Question: It has been reported that among the options being considered in review was a conclusion that the United States can make major reductions in the American troop levels in South Korea and can afford to lose forward bases in the Philippines. Was this option, in fact, considered in the review? Do you agree with these conclusions?

Answer: This question will be addressed in the report to the congress on defense policy and strategy in East Asia and the Pacific to which I have previously referred.

Question: In testimony before this Subcommittee last year, General Menetrey indicated that South Korea ground forces, assisted by U.S. airpower, clearly were capable of deterring or defeating the North Korean threat. Does this conclusion still hold true?

Answer: U.S. and ROK forces provide an adequate deterrent to an attack by the North Koreans. A combination of both U.S. and ROK forces will continue to be necessary for a credible deterrent in the future. The mix and type of forces necessary in the future will change as the military capabilities of the ROK continue to improve. It is not inconceivable that, given continued improvements in ROK ground force capabilities, the primary U.S. contribution would be air and naval power. However, this is not the case today. The U.S. contribution to deterrence of conflict in Korea is under constant review to ensure that it meets the needs of maintaining peace and stability in the peninsula.

Question: It is not possible for the U.S. and the South Koreans to agree on a more significant reduction in U.S. ground forces in Korea than the 5,000 supposedly being planned?

Answer: This question will be addressed in the report to the Congress on defense policy and strategy in East Asia and the Pacific to which I have previously referred.

Question: How will the shift in strategy focus you have highlighted change the requirements for specific types and number of units, equipment, and personnel in the Pacific Command?

Answer: This question will be addressed in the report to the Congress on defense policy and strategy in East Asia and the Pacific to which I have previously referred.

Question: The U.S. plans to cut back about 10,000 - 12,000 military personnel of the total force in this area. How was this number decided upon? What will be the net effect militarily of this reduction on Pacific Command's capabilities to successfully execute its peacetime missions and its wartime operational plans?

Answer: This question will be addressed in the report to the Congress on defense policy and strategy in East Asia and the Pacific to which I have previously referred.

Secretary Cheney's Asia Trip - Results

Question: Admiral Hardisty, Secretary Cheney has just informed our Asian allies about forthcoming troop reductions in U.S. forces in South Korea and Japan. He requested increased efforts by both nations to shoulder more of the common defense burden. Your testimony briefly discusses the need and opportunities for South Korea and Japan to increase their mutual defense contributions. What is your estimate of the likelihood that Japan and South Korea actually will increase their defense contributions in the specific categories and amounts requested by the United States?

Answer: The political, economic and military situations in Japan and Korea are very different. Likewise, each bilateral relationship is different yet very close and productive. In military meetings with each ally we have made known the need for our allies to shoulder greater responsibilities befitting their significantly improved economic status. In Japan, we have discussed various general categories of U.S. yen-based costs with an overall goal for Japan to eventually assume funding for all appropriate yen-based costs. We are optimistic that Japan will agree to additional cost-sharing measures. On the other hand, Korean officials are receptive to discussing specific goals for increased cost sharing. Detailed discussions have taken place with Korean officials and there is also a very good chance for success here.

Question: What specific actions would you recommend the U.S. government, or the Defense Department, take to press these requests if South Korea and Japan do not agree to them?

Answer: Firm but quiet consultation offers the best chance of success without jeopardizing close and productive relationships. Ultimately, it is in the U.S. interest to be forward based in Japan and Korea and very much in our interest to remain as friends and allies.

A Stronger Japan -- Implications for the Future

Question: Admiral Hardisty, the Administration has emphasized the need for a continued U.S. military presence in the Far East. Many experts suggest that such a presence minimizes any potential military dangers from a stronger Japan. Do you think that a further re-armed Japan could pose a threat to the national security interests of the United States by the end of the century?

Answer: As long as the U.S. remains a Pacific power and the U.S.-Japanese security relationship is intact, Japan and her military forces will remain defensively oriented. Japan poses a threat to no other nation. It is unlikely Japan would increase its capability to project military forces to threaten others. In structure and training, the Japan Self-Defense Force is exactly what its name implies -- a force to defend Japan. The national consensus for status quo is very strong and nothing suggests otherwise in the future. Japan wants to maintain its security relationship with the U.S. Should the U.S.-Japanese security relationship be called into question by a precipitous act or should U.S. actions indicate it is withdrawing from the Asia-Pacific region, it is conceivable in these circumstances that Japan could feel compelled to build up its forces in order to protect its extensive regional and global interests.

Question: Does the prospect of a further re-armed Japan cause concern to our other friends and allies in Asia?

Answer: Beliefs and perceptions linger on and a re-armed Japan with an offensively oriented military force would be widely feared. However, for the present or foreseeable future, this is just not the case. The Japanese forces are defensively structured and a threat to no other nation. Neighboring nations may be wary, but I do not believe any are fearful--or need to be. One event that would cause concern and instability, however, is a U.S. withdrawal from East Asia.

Question: How can the U.S. minimize the prospects of history repeating itself in the future with respect to threats from a militarily - and economically-stronger Japan?

Answer: The best prescription against history repeating itself is close and beneficial cooperation in every aspect of our relationship. We must remain involved in Japan and in the Pacific; and we must do so in a spirit of harmony and cooperation. We can point with pride to our extremely close security relationship which forms the bedrock of our relationship with the Japanese. But we must continue to expand and improve other aspects of our relationship also. This is a two-way street and Japan can do more. The signals we are sending now, from Secretary Cheney's visit to President Bush's talks in Palm Springs, are the proper signals. With patience and understanding by both parties, these actions will result in a stronger relationship.

Question: Your statement says it is not in the interests of the U.S. or the stability of Asia for Japan to develop power projection capabilities. There are reports that Japanese defense planners are considering the acquisition of aircraft carriers and aerial refueling tankers which have a clear power projection capability. Would you be concerned, if Japan acquired these and other power projection capabilities?

Answer: An important role jointly agreed upon is sea lane defense to 1,000 NM by Japan's forces. Air Defense systems are required with long-range capabilities. The JSDF currently has a shortfall in defense capabilities at the edge of the 1,000 NM arc. I support air defense and surveillance systems that would address this shortfall. In this area, long-range capabilities do not automatically mean offensive capabilities.

Question: How can the U.S. successfully encourage Japan to spend more in support of U.S. military capabilities in the Pacific Region?

Answer: Quiet diplomacy and patience offer the best chance for success in a number of support areas. We have already engaged GOJ officials in discussions on greater cost sharing, increased opportunities for technology transfer and further R&D cooperation efforts.

Soviet and Other Threat Changes/Improvements in Pacific

Question: Admiral, your statement says that while the Soviet military threat in the Far East has changed somewhat, Soviet power projection capabilities in the Far East have qualitatively improved. On the other hand, U.S. forces in the region also have improved. Considering changes to both Soviet and U.S. forces in the region, are U.S. forces under your command more or less capable than they were 12 months ago of accomplishing their peacetime and wartime missions?

Answer: U.S. Pacific Command forces as a whole are more capable of accomplishing their peacetime and wartime missions. They continue to maintain their high levels of readiness and have experienced no reduction in their capabilities. The equipment and personnel assigned to this command are superb. Our ability to properly equip and sustain our forces in wartime continues to increase as modern weapon systems and munitions come on line. The dedication and skill that our people are demonstrating on a daily basis are impressive.

Question: What further changes -- cutbacks, reorganizations, enhancements -- do you contemplate in Soviet Far East forces in the next 12-18 months? What specific opportunities will these changes present for further alterations in the U.S. Pacific Command force structure and capabilities?

Answer: [Deleted]

While some adjustments can and will be made, I do not envision any major reductions in the Pacific Command's force structure and capabilities. We are already an Economy-of-Force theater responsible for protecting U.S. interests spanning over

50% of the earth's surface with only 17% of the current total U.S. forces. We will continue to face significant concerns; regional conflicts, territorial disputes, religious and ethnic conflicts, international terrorism and illegal drug trafficking. We cannot afford to have a hollow force if we are to effectively protect and foster U.S. interests and maintain regional peace and stability.

Question: Have Asian perceptions of the Soviet political and military threats to the region been changed by the military collapse of the Warsaw Pact, the Soviet preoccupation with domestic reforms, and Soviet military cutbacks and restructuring in the Far East?

Answer: While Asian nations view the changes in the Warsaw Pact and the Soviet Union as very positive developments, the direct impact on Asian nations has been limited. The most significant Soviet reductions have been along the Chinese border and in Cam Ranh Bay, Vietnam. Certainly China welcomes these moves, although they are less enthusiastic about the political reforms in the USSR and Eastern Europe. Japan still sees the USSR as a strong potential threat and the Republic of Korea has seen virtually no reduction in the threat from its principal adversary, North Korea. In short, Asian nations welcome the Soviet changes but are being cautious in their reactions to them.

Question: Your statement says that the most probable threats to peace in Asia and the Pacific now lie in other directions than the US-Soviet global scenario upon which our past Pacific strategy was based. Specifically, what are these new threats?

Answer: They aren't really new threats, Mr. Chairman. For more than 40 years we have been able to deal with many challenges to U.S. interests as "lesser included offenses" of the threat presented by the Soviet Union.

Looking at the Pacific since I reported to the Pacific Command headquarters in October of 1988, here are the kinds of things that have constituted clear and present threats to U.S. interests in my Area of Responsibility (AOR):

- Regional Conflict (Korea in particular)
- Territorial Disputes
- Economic and Political Instability
- Religious and Ethnic Conflict
- International Terrorism
- Illegal Drug Traffic

Question: How do you assess the military capabilities of the United States and its Asia allies to defeat each of these threats? What changes should be made to our Pacific Command forces to improve their capabilities against these threats? If U.S. and allied forces can defeat the most demanding scenario -- a Soviet or North Korean scenario -- won't it be able to defeat these other threats?

Answer: As our principle focus evolves away from the threat posed by the Soviet Union towards those concerns that have traditionally remained in the background, I see a concomitant evolution in Pacific force structure, as well. In my view, the strategic imperatives of the future are mobility and flexibility. With that in mind, tactical and strategic lift are at the top of my priorities for future programs. A successfully executed maritime and airlift improvement strategy is key to our future in dealing with the "other threats."

Keep in mind, however, that the "other threats" in the future are far from trivial. The availability of long range weapons delivery systems, precision guided munitions, and, in some cases, chemical or even nuclear weapons make potential future hostilities every bit as demanding as past conflicts. Faced with uncertainty and recognizing the imperative for mobile, flexible, and combat capable forces, the ships and aircraft that make up our carrier battlegroups and amphibious ready groups are clearly the force of choice for the future.

As I look toward the future shape of ground forces in the Pacific, I see the need for organizations that are not only mobile but, more importantly, tailorable to a wide range of contingencies and sustainable in terms of available Combat Service and Combat Service Support units.

Finally, we will require air forces which give us a variety of capabilities: those in Korea will continue to provide a critical interdiction capability to complement US/ROK ground forces, as the Republic of Korea transitions to a leading role in its defense; our land-based aircraft (outside Korea) will continue to provide a forward-deployed presence and the ability to counter a wide variety of threats; and adequate airlift will give our combat forces the mobility and flexibility necessary to succeed in protecting our national interests in any reasonable scenario.

Guam and American Samoa

Question: Admiral Hardisty, when discussing U.S. territories -- Guam and Samoa -- are too often overlooked. Last month I visited these islands and I was again impressed with the patriotic attitude of the citizens in these islands. American Samoa and Guam stand as a showcase of the U.S. to our neighbors in Asia and the South Pacific. They provide forward deployed locations that the U.S. can count on in times of national emergency. And, they are locations that are not contingent upon base rights negotiations. In Guam, there are unique problems. The military owns one third of the land and still dominates the economy. Almost all the Guamanian political and economic leaders told me that land issues were their number one concern. What actions have been taken, since my January visit, to expedite the transfer of Department of Defense land to the Guamanians?

Answer: At present GSA is processing three specific parcels for no-cost return to GOVGUAM. These parcels are 314 acres for a community college, 44 acres for a southern area high school and 74 acres for a sewage treatment plant. In addition, GOVGUAM has requested from the Air Force an additional 80 acres of non-excess land to be used for a northern area high school. When the parcel is identified, GOVGUAM officially can request this land be declared excess and it is our intention to favorably endorse the request. Once the land is declared excess, GOVGUAM will still have to follow Federal Disposal

Procedures, including requesting that the land be conveyed as an educational exemption to the normal fair-market-value compensation requirement. The transfer or sale of federal land is governed by federal law. The Federal Property and Administrative Services Act of 1949 establishes GSA as the Federal Agency for controlling the turnover or sale of excess and surplus federal lands. Federal disposal procedures, which are contained in the Code of Federal Regulation (CFR), require that any surplus land be disposed of in the most economical manner and that the Federal government receive fair-market-value compensation for the land. In specific cases that meet specified use exemption, as with the current three parcels requested by GOVGUAM, the land can be transferred without payment. If land is to be turned over en masse, GOVGUAM must comply with the procedures contained in 41 CFR, chapter 101. We have continually encouraged GOVGUAM to do so.

Question: What actions have been taken to relocate Navy flying from the Agana Naval Air Station to Andersen Air Force Base?

Answer: The issue of consolidation of the Naval Air Station operations with Andersen Air Force Base was formally raised in a 13 January 1989 letter from Governor Ada, requesting that the land and facilities of NAS Agana be turned over to the Government of Guam. Based upon the Governor's letter, Navy began to study the possibility of relocating NAS Agana operations at Andersen. That study indicated that NAS operations could be conducted from Andersen, but that consolidation would cost $458 million. This cost estimate data was provided to Congressman Blaz by the Secretary of Defense in a letter dated 14 July 1989. The Air Force is developing a plan for inactivation of the 43BMW, which includes the B-52 Squadron. The final Air Force plan will identify current Air Force facilities at Andersen that would be available for use by the Navy. At that time, revised cost estimates can be generated. Meanwhile, at the request of Congressman Blaz, GAO has been conducting an independent study of the costs involved with consolidation. GAO is now restudying the costs in light of the Congressional mandate to deactivate the B-52 Squadron. The final GAO report is expected to be released in August or September. Identification of a source for funding the consolidation has been a major impediment. Once the studies are complete and a source for funding the consolidation identified, the action can move forward.

Question: In Samoa--the territory is lacking adequate inter-island transportation. CINCPAC and the Navy have often made excess Navy ships, such as LCU's, available for foreign countries. Admiral, would you please scour your inventories to see if such a boat could be made available to American Samoa?

Answer: Yes, we will investigate the potential availability of this type asset which could be applied against American Samoa's requirement. Additionally, we will contact the appropriate U.S. government agencies to initiate the request process. In the Pacific we have found landing craft are very much in demand by many of the developing nations to assist in economic, infrastructure development. Presently, we have received requests for various landing craft from Bangladesh, Republic of Marshall Islands, Cook Islands, Tonga, Kiribati, Maldives, Palau, and the Philippines.

Dependents in the Philippines

Question: Admiral Hardisty, the Department of Defense is maintaining approximately 16,000 civilians and around 20,000 dependents, in the addition to our military presence, in the Philippines. These figures were current as of the last quarter of fiscal year 1989. In view of increasing tensions between our government and the government of the Philippines in recent months, do you have any plans to reduce the numbers of American civilians and dependents in the Philippines?

Answer: The security of American citizens in the Philippines is a major concern of ours, but the threat to Americans is derived from terrorists acts perpetrated by the communist insurgents. Accordingly, in coordination with the Government of the Philippines, we have taken prudent steps to reduce their vulnerability consistent with the known threat. Our assessments of the threat do not indicate a basis for us to begin a reduction of civilians and dependents. Aside from that experienced from the normal rotation cycle, any other reduction which may occur would be a result of some operational adjustments and not because of the current threat.

Question: Has the Department of Defense a contingency plan for withdrawing American civilians and dependents from the Philippines if tensions should worsen?

Answer: At every level in the chain of command there is a plan addressing the evacuation of American civilians and dependents. The USCINCPAC contingency plan specifically addresses the Philippines and is supported by detailed contingency plans in-country at 13AF and COMNAVPHIL, to include evacuation of US military facilities and the US Embassy Compound. The Embassy also possesses an internal evacuation plan.

Question: Do you have any real confidence that these civilians/dependents could be rescued in an emergency without significant loss of life?

Answer: There are approximately 300,000 Americans in the Philippines - official, dependents, retirees, business people, etc. [Deleted] Indeed, there is no firm number of USN/USMC retirees residing off Subic (vicinity Olongapo). In short, given the large number of U.S.-affiliated persons and the large geographic area in which they live, [deleted]

U.S. Army Pacific (USARPAC)

Question: As you know, the U.S. Army has been consolidating its command structure in the Pacific theater. Just last fall, U.S. Army forces in Alaska were put under the operational control of the Army's Western Command (WESTCOM). The Army has proposed that a new command — U.S. Army Pacific or "USARPAC" — replace WESTCOM. Do you support this change? What peacetime or wartime command and control improvements would you anticipate to occur due to the creation of USARPAC?

Answer: I am in complete agreement with General Vuono's decision to redesignate my Army Component, U.S. Army Western Command, as United States Army Pacific (USARPAC) with responsibility for Army forces [deleted] It is a positive and meaningful first step towards streamlining Army command and control in the Pacific and sets the stage for ultimately placing Army forces [deleted] under USARPAC. [deleted] it allows us to realign our forces in an evolutionary manner while maintaining maximum readiness and efficiency during this phased transition. Organizing a theater Army command as the USCINCPAC Army component is consistent with the Army's doctrine and parallels the organization of other USCINCPAC component commands.

Soviet Withdrawals from Cam Ranh Bay

Question: There are reports that Soviet Union has withdrawn all of its MIG-23 fighter planes and about half of its TU-16 bombers from its base at Cam Rahn Bay in Vietnam. What effect does the reduction in Soviet forces in Cam Ranh Bay have on their power projection and warfighting capabilities in Southeast Asia? Southwest Asia?

Answer: Soviet withdrawals from Cam Ranh Bay (CRB) are a welcomed step in the right direction in this era of declining tensions. [Deleted]

Question: How do the Soviet force reductions alter U.S. requirements for a military presence in the Philippines?

Answer: U.S. Military presence in the Philippines has never been related to the Soviet presence in Cam Ranh Bay. As you know, we had a security relationship with the Philippines long before the Soviet Union ever existed. Our facilities have served the interests of the Philippines as well as the United States. As an important part of our forward basing strategy these facilities have played a key role in protecting U.S. interests, promoting stability in the region and maintaining close interaction with our valued ally, the Republic of the Philippines. While budget considerations may cause reappraisal of the force structure, the bases will continue to be important to U.S. interests.

Taiwan Relationships

Question: What security relationships do we maintain with Taiwan? What level of contact does your command have with the Taiwan Government and military?

Answer: On 1 January 1979, the U.S. established diplomatic relations with the People's Republic of China and terminated formal diplomatic relations with Taiwan. On 31 December 1979, the Mutual Defense Treaty with Taiwan was terminated. The current relationship with Taiwan is based on the Taiwan

Relations Act (TRA) of 1979 which, in addition to continued economic and cultural relations, allows the U.S. to provide defense articles and services for Taiwan to maintain a self-defense capability. Since the U.S. does not recognize Taiwan as a diplomatic entity, all programs, including military, are conducted through a non-governmental corporation, the American Institute in Taiwan (AIT). All military interaction is based on Foreign Military Sales (FMS) to Taiwan, which are centrally managed in Washington. USCINCPAC has no operational contact with the Taiwan government or military. [Deleted]

Question: What role does Taiwan play in our overall Pacific strategy?

Answer: We currently do not have operational or planning ties with Taiwan and they have no specific role in our Pacific strategy. However, as a growing economic power rapidly moving toward full democracy, Taiwan is a valued trading partner of the United States and a positive influence in the Pacific region.

CINC INITIATIVE FUND

Question: Admiral Hardisty, last year this Subcommittee proposed, and Congress agreed to establish, a "CINC Initiative Fund." This fund is an outgrowth of the CINC hearings that we held last year. It is our attempt to respond to high priority requirements of our theater commanders. Could you describe the projects that will be funded in CINCPAC this year?

Answer: Since January 1990, we have requested funding for 38 projects for approximately $5.6 million. To date, three CINC Initiative Fund projects total cost $86.8K have been approved. We received $10.8K for two Pakistani officers to attend two conferences, which helps strengthen our ties with the Pakistani military. $30K has been allocated for an Economic Security Seminar in the Philippines, a critical project in light of the upcoming base negotiations. $46K was granted for temporary duty and travel expenses to train the recently formed Deployable Joint Task Force Augmentation Cell. The Augmentation Cell will significantly improve our response to crisis situations.

Question: Could you provide your views on the value of this "CINC Initiative Fund"? How could the fund be improved if Congress decides to appropriate funds for its continuation in FY 1991?

Answer: The intent was to establish a mechanism which provided CINCs the necessary flexibility to expedite funding for unforecast requirements falling within the CCIF purview. Unfortunately, many of our projects went unfunded this year because $45M of the $50M originally allocated to the CCIF was withdrawn. From my perspective as CINCPAC, the CCIF, if continued, has a promising future. Regarding fund improvements, funding levels should be substantially increased from the $50M currently allocated and procedures for obtaining project funding approval should be improved. This has been the first year for the fund; we've learned some good lessons. We just need to apply those lessons learned in the future.

QUESTIONS SUBMITTED TO ADMIRAL HARDISTY BY SENATOR BYRD

East Asia Strategy Initiative

Question: The United States reportedly has recently prepared a review of its Pacific strategy, known as the East Asia Strategy Initiative, that recommends reducing U.S. personnel in Japan, South Korea, and the Philippines, by 7,000, 6,700, and 2,000, respectively. This would reportedly amount to a 10%-12% reduction in U.S. personnel in these countries. Please explain the East Asia Strategy Initiative in more detail, as well as the effect that these personnel reductions will have on our Pacific capabilities and strategy.

Answer: The FY90 Defense Authorization Act required that the Secretary of Defense review and report to the Congress on U.S. policy and strategy in Asia and the Pacific. The report is due to the Congress on 1 April 1990. I participated in the policy review and support its conclusions. It is, however, appropriate that the answer to this question await the delivery of the report to the Congress.

C-130T Aircraft/Naval Air Reserve

Question: I am advised that during your testimony earlier this month before the House Armed Services Committee, you emphasized the importance of the Naval forces in your command since you are responsible for 50 percent of the globe. Would you tell the Committee what part the Naval Air Reserve plays in keeping these Naval forces ready for combat?

Answer: The Naval Air Reserve Force exists to train selected Reservists to respond to Fleet requirements during mobilization. In peacetime, the Naval Air Reserve provides quick response Fleet logistic support as a by-product of that mobilization training. The air logistics support is designed to move intra-theater passengers and cargo from ports of entry to rapidly changing Fleet locations.

Question: Last year the Committee provided funds for the procurement of two C-130T aircraft for the Naval Reserves to meet wartime requirements for Naval Fleet logistics operations. The Committee provided those funds to ensure that you and other theater commanders will have the Naval logistics support you need to meet your commitments. Will you be able to make good use of these C-130T's?

Answer: Absolutely. The C-130 is one of the most versatile cargo aircraft in the world. With its unique rear loading capability, and excellent short field and cross wind handling characteristics, the aircraft is ideally suited for wartime logistics requirements. Our recent Fleet exercises in the Northern Pacific verified a wartime carrier battle force support requirement of a minimum of four Naval Reserve C-130 aircraft in both the Third and the Seventh Fleet operating areas. During the exercise, C-130's were used to move aircraft engines and other outsized cargoes to the carrier battle forces. Marine Corps tanker versions of the C-130 were used to shuttle jet fuel to austere airfields which lacked sufficient jet fuel to commence immediate operations. The C-130T's authorized in FY 1990 are equipped with this same "plane to ground storage tank" fuel transfer capability.

Question: The President has validated the requirement for C-130T aircraft by placing two in the FY 1991 budget. Do you support the budget request for these aircraft for the Naval Reserve? Will these two C-130T's be based in New Orleans?

Answer: Yes, I support the President's budget request. These two aircraft will be assigned to VR-54 in New Orleans. The addition of these two aircraft to the two C-130T aircraft authorized in FY 1990 will complete the four aircraft allowance contemplated for New Orleans.

Question: The committee understands that the Naval Reserve's current plans are to base four aircraft at three other locations; i.e., Martinsburg, West Virginia; NAS Glenview, Illinois; and NAS Alameda, California. Is this correct?

Answer: Current plans call for basing four aircraft each at Martinsburg, Glenview and NAS Pt Mugu. NAS Pt Mugu was selected as the fourth site vice NAS Alameda to take advantage of existing C-130 maintenance facilities at NAS Pt Mugu. The demographics of these three locations meet the requirements of the Naval Reserve mission.

Question: If Congress were able to provide up to four additional C-130T's in FY 1991, would these additional aircraft be based in Martinsburg?

Answer: Yes, they would. Basing the aircraft in Martinsburg would allow the recruitment of Naval Reservists from the large population base in the Northern Virginia area.

Question: Will any military construction be required to facilitate these C-130T units at any of these locations? If so, what level of funding will be required for each location and for what purpose? Please provide SF 1319 forms for the record, if they are available.

Answer: New construction will be required at both New Orleans and Martinsburg. Approximately $11.2 million is required for a hanger and facilities at New Orleans, and $15.0 million is required at Martinsburg for a hanger, ramp and apron facilities.

QUESTIONS SUBMITTED TO ADMIRAL HARDISTY BY SENATOR DECONCINI

Soviet Intentions in the Pacific

Question: In your testimony, you state that "Soviet power projection capabilities have qualitatively improved, their modernization of strategic systems continues. Although their intentions appear to have changed, the Soviets retain significant warfighting capability in the Pacific region." What changes have we seen in Soviet intentions in the Pacific region? If Soviet intentions are less directed toward a hostile, military solution, to what do you attribute their improvements in their power projection capabilities?

Answer: Soviet intentions are reflected best by their Pacific foreign policy. The Soviets began pursuing new Pacific foreign policy objectives beginning with Gorbachev's 1986 Vladivostok speech. We see three broad objectives: rapprochement with China, access to Asian-Pacific markets, and reduction of the U.S. military presence. [Deleted]

India

Question: You state that India is one of the five power centers bordering on the Pacific. There are obvious concerns about the ballistic missile and potential nuclear threat that other countries in the region face from India. To what do you attribute India's desire to acquire such an impressive military capability? Other than Pakistan, what credible threats are there to India today?

Answer: [Deleted]

U.S. Access to our Bases in the Philippines

Question: There have been a number of concerns raised about Secretary Cheney's less-than-welcome reception in the Philippines by the Aquino government. Apparently, the Philippine government has yet to set a date or time to begin the negotiations on U.S. access to our bases in the Philippines. The clock is running. How far along are we in determining suitable alternative sites for these bases if the United States and the Philippines are unable to reach a suitable agreement on the bases? If this continues to be a sore point between our two countries, does the Defense Department not feel that the apparent antagonism to the U.S. presence constitutes a direct threat of safety risk to U.S. personnel?

Answer: In August 1989, Secretary of Defense Cheney forwarded to Congress a report on the U.S. military facilities in the Philippines. That report analyzed the costs and benefits to U.S. and to the RP of maintaining the existing facilities, the strategic value to the U.S. of these facilities, and alternate locations for these facilities, including the availability of skilled indigenous personnel. The threat to American citizens is not derived from the points of contention between our two countries, but rather from the Communist left which wants the U.S. presence removed and has killed some Americans to shock U.S. public opinion and to undercut U.S. resolve to stay on.

QUESTIONS SUBMITTED TO ADMIRAL HARDISTY BY SENATOR BUMPERS

U.S. Forces Support in Japan and South Korea

Question: Japan provided almost six times as much support for U.S. forces in their country (about $40,000 per troop) than does South Korea ($300M for 43,000 troops works out to about $7,000 each). Please provide a breakout of the forms that support takes for each country.

Answer: Estimated Japanese contributions in millions of dollars for 1989 are:

Japan Funded - Direct	
Facilities Improvement	$685
Leases, relocation, environ. compensation	$924
Labor Cost Sharing	$410
Misc JDA Outlays	$181
Subtotal	$2,200
Japan Funded - Indirect	
Waived Land Costs	$607
Foregone Taxes, Tolls, Customs, etc	$334
Subtotal	$941
JAPAN TOTAL	$3,141
(exchange rate)	(130/$)

South Korea provides the following for support of U.S. forces in Korea. Figures are Korean figures for 1989 in millions of U.S. dollars:

Korea Funded - Direct***	
Real Estate	$172
Personnel Support - KATUSA - ROK Military Liaison - Security Forces	$2.4
Operations and Maintenance - JUSMAG-K - CFC/CFA HA - KCOIC/HTACC	$3.2
Combined Defense Improvement Projects	$40
Logistics Support - Ammunition (SALS-K) - Petroleum Service	$65.4
Aircraft Maintenance	$5
Subtotal	$238

Korea Funded - Indirect	
Real Estate	$1,190
Personnel Support	$350.3
- KATUSA	
- ROK Military Liaison	
- Security Forces	
Logistics Support	$212
- Ammunition (SALS-K)	
- Petroleum Service	
Use of ROK Facilities	$16.1
- Training Areas	
- Ranges	
- Air Traffic Control	
Tax Benefits and Discounts	$174.2

Subtotal	$1,942.6
KOREA TOTAL	$2,230.6

* All figures except CDIP and aircraft maintenance obtained from MND Cost Sharing Report and based on FY88 won rates (W753/$1)

** Represents value of support provided or foregone revenues.

*** Represents actual expenditures by ROKG.

Removal of Troops from South Korea

Question: At a rate of 5,000 troops over three years, it will take 25 years for the U.S. to completely withdraw its forces from South Korea. That would be the year 2015. Why can't (we) remove our forces more quickly?

Answer: We are determined to transition from a leading to supporting role in the Republic of Korea. The pace of that transition and the pace of any accompanying withdrawal of U.S. forces should be a function of our assessment of a number of factors; the military balance between North and South, the ability of the ROK military to assume new roles, our obligations to the ROK under the terms of our mutual security agreement, and our obligations to the United Nations, to name a few. If we assess these factors to allow a different pace of withdrawal, we can do that. Barring a complete reconciliation of the problems between the North and South, even when we are fully transitioned to a supporting role, I envision a need to maintain some U.S. military presence on the peninsula to defer North Korean aggression, ensure stability, and meet our commitments under the mutual security agreement.

Question: Isn't it true that our Air Forces are militarily more significant than our ground forces in South Korea? Why wouldn't about 10,000 Air Force personnel, about the same number as we have in Berlin, be a sufficient deterrent?

Answer: The situations in Berlin and Korea are not comparable. While the military threat from the Warsaw Pact appears to have diminished significantly, North Korea remains a hardline, unpredictable regime which poses a real threat to peace and stability in the region. To say that our 10,000 Air Force personnel "are militarily more significant" than our 30,000 ground forces would be inaccurate. Rather, our Air Forces are a critical complement to the US/ROK ground forces which have provided a successful deterrent for nearly forty years. They should continue as such as we transition from a leading to a supporting role in the defense of South Korea.

South Pacific Nuclear Free Zone

Question: What are U.S. objections to the establishment of a nuclear free zone in the South Pacific?

Answer: The South Pacific Nuclear Free Zone (SPNFZ) Treaty was unanimously endorsed by the 13 member nations of the South Pacific Forum (SPF) at its 16th meeting in Rarotonga, Cook Islands, in August 1985. The primary thrust of the treaty was to prohibit the storage, production, stockpiling or testing of nuclear weapons or materials in the established zone. Provisions of the treaty recognized the right of international navigation and the sovereign rights of nations wishing to provide in-transit facilities. The treaty came into force on 1 December 1986. Since then, the Republic of the Marshall Islands and the Federated States of Micronesia have become full members of the SPF. In an effort to gain recognition for the SPNFZ, France, Great Britain, the People's Republic of China, the Soviet Union, and the United States were invited to sign three protocols included in the treaty. In brief, the protocols have the following provisions:

1. Protocol I requires the signatories to apply the provisions of the treaty to their territories or dependencies within the zone. This would restrain the exercise of U.S. defense authority in and for U.S. territory within the zone. (For the U.S., American Samoa, Jarvis Island, and conceivably the Freely Associated States).
2. Protocol II requires the signatories not to use, or threaten to use, any nuclear explosive device against states party to the treaty and not contribute to any act that would constitute a violation of the treaty by parties to the treaty. This would prohibit U.S. assistance to allies in nuclear operations.
3. Protocol III prohibits the signatories from testing any nuclear explosive device within the zone.

The PRC and the Soviet Union have signed all three protocols; France, Great Britain, and the United States have not. The United States does not object to the establishment of the SPNFZ as a regional tool to control nuclear weapons proliferation and increase stability. However, U.S. security requirements are global, so we must consider implications beyond the region itself. The growing number of proposals for regional nuclear free zones has the potential to undermine U.S. deterrent posture by limiting the response options available to meet the threat.

Nuclear Powered Submarines in India

Question: India now has nuclear powered submarines? Why do they need them? Do they have any capable of carrying ballistic missiles?

Answer: [Deleted]

Reduction in Force

Question: Under Secretary of Defense for Policy, Paul Wolfowitz, said yesterday that the administration is seeking "efficiencies and further economies in our force structure that could allow us to reduce our presence by as much as 10% in Japan, South Korea, and the Philippines. The final specifics of numbers and particular units will be determined by our regional commanders within this broad guidance." What are the specific numbers of personnel and specific types of units you would recommend be removed from the region under the administration 10% plan?

Answer: No specific numbers of personnel or specific types of units have been identified at the present time for removal from East Asia. We are reviewing our force posture to determine where we might adjust force levels while still maintaining the necessary presence that is the major stabilizing factor in the region. Because our bilateral agreements are a cornerstone of our security umbrella in the Pacific, we will be discussing any adjustments in our force levels with our allies to ensure no security responsibilities are left unfulfilled.

Question: What alternative basing arrangements is DOD considering should we lose our bases in the Philippines? What is the projected cost to relocate our forces to alternate bases? What capabilities, if any would we lose in that region of the world?

Answer: The August 1989 report forwarded to Congress by Secretary Cheney indicated that, while the Philippine facilities are ideally located in geostrategic terms, viable alternatives exist. These alternatives are considered in terms of total and partial U.S. withdrawal from the Philippines. As mandated, the report analyzed the costs and benefits to maintaining the facilities and outlined estimated costs for withdrawal in terms of these two scenarios. Impact on operations is also addressed in that report.

QUESTION SUBMITTED TO ADMIRAL HARDISTY BY SENATOR D'AMATO

Japanese Submarines

Question: A recent edition of Defense & Foreign Affairs Weekly quoted an unnamed U.S. official as saying, "In the submarine field alone, the Japanese have developed absolutely the quietest vessels in the world. We can't track them; the Soviets can't track them." Do you know this to be true?

Answer: [Deleted]

U.S. FORCES KOREA

STATEMENT OF GEN. LOUIS C. MENETREY, USA, COMMANDER

INTRODUCTORY REMARKS OF SENATOR INOUYE

Senator **INOUYE**. It is now my pleasure to call upon Gen. Louis C. Menetrey, the Commander of U.S. forces in Korea, to give the committee his perspective on the military and political situation on the Korean Peninsula.

General Menetrey has testified before this committee for the past 2 years and his contribution to our understanding of the Korean political and military environment has been invaluable. While the dramatic developments in Europe and the Soviet Union over the past year have led to a reevaluation of our military strategy in Europe, Korea's militarized frontier remains dangerous. North Korea is still heavily armed. It is doctrinaire and, above all, unpredictable.

However, after 3 straight years of 12-percent economic growth, South Korea is even more able to help pay for its own defense.

General, we have already received your prepared statement. We have read the statement very carefully. I look forward to open and frank discussion of the future of our forces in Korea. As staff has notified you, we do have an important caucus on clean air beginning at 10:30. We would like to spend more time, but we will be submitting most of our technical questions to you, sir.

General, welcome, sir.

General **MENETREY**. Thank you, sir.

As you mentioned, sir, I have a statement for the record. I was going to have an opening statement, but in light of the time here I think I will just forego that with your concurrence. I cannot improve much on your statement, in any event.

[Deleted.]

ARMS BUILDUP

So there has not been that much change. Sometimes it has gone unnoticed that there has been, for about the last 10 years, an arms buildup on the Korean Peninsula, on both sides. As you know, the Republic of Korea has increased their defense budget in percentage terms, far greater than any other United States ally or the United States itself. Nevertheless, with all that increase, the situation and the military balance remains much the same because at the same time the North has been increasing.

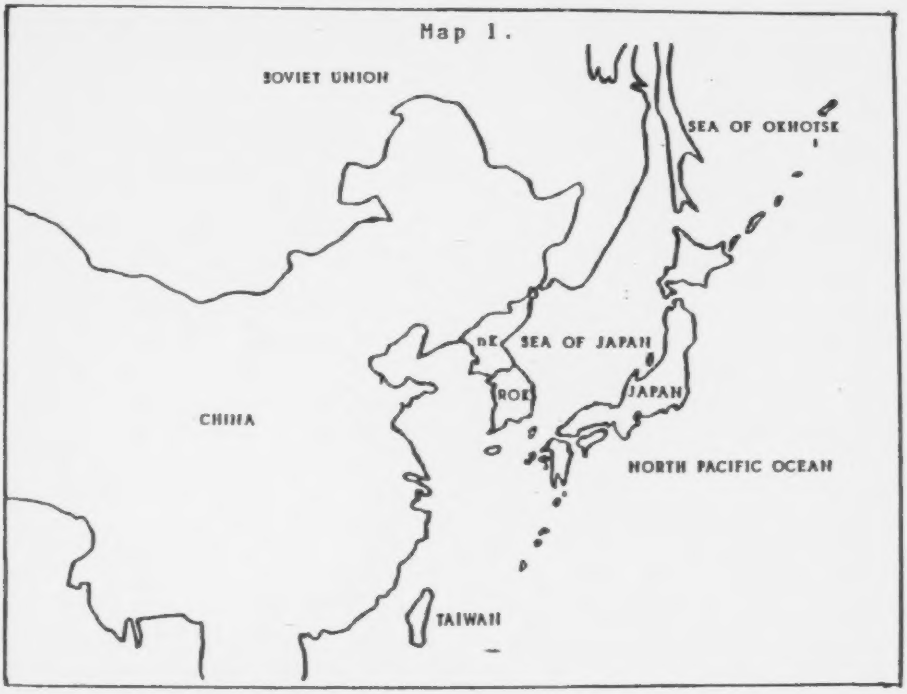
This is, needless to say, a destabilizing kind of impact and it is a cycle we should seek to break, if we can. So I am prepared to assist you in any way I can, sir, and answer any specific questions. And I think that is probably the most valuable use of the time.

[The statement follows:]

Statement of Gen. Louis C. Menetrey

I. INTRODUCTION

Mr. Chairman and distinguished members of the Defense Subcommittee: It is a pleasure to appear before you today to discuss the defense of United States interests in the Pacific. It has been a little more than a year since I last appeared before this subcommittee and during that time the world has witnessed changes on a scale few of United States would have imagined. While the profound changes occurring in Europe have focused much of our attention on that part of the world, we must also consider the state of United States interests elsewhere. Confronted with the political and military changes on the international landscape, as well as the realities of budgetary constraints, an examination of the United States role in Northeast Asia, including the Republic of Korea (KOK), is most appropriate.



II. THE IMPORTANCE OF NORTHEAST ASIA (MAP 1.)

Northeast Asia is an area where the interests of the four major world powers intersect—the United States, USSR, PRC and Japan.

The East Asia and Pacific region is of ever increasing importance to global stability and to continued American prosperity.

For years, trade in the region has greatly exceeded that with Europe; the economic vitality of the U.S. is linked to this region; and together, the United States and Japan account for 40 percent of the gross world product.

U.S. STRATEGY AND OBJECTIVES

The U.S. postwar grand strategy of containment was designed to check the advance of communism, reverse that advance whenever and wherever possible, and ultimately to foster conditions leading to fundamental alterations within the communist world that would transform it into a less threatening system.

U.S. national military strategy is built primarily around deterrence, alliance solidarity, and forward deployed forces.

Deterrence, to be effective across the spectrum of conflict, must be based on credible, combat-ready forces and an equally credible political will to employ them; alliance solidarity produces a synergistic effect which benefits all partners; and forward deployed forces demonstrate resolve, foster regional stability and power balances, support friendly nations and provide quick reaction capability in emergencies.

U.S. security objectives in East Asia and the Pacific include assisting allied and friendly nations develop politically and economically, free from encroachment, coercion or active military threat.

Our alliance with Japan is basic to the United States position in the region. A primary U.S. objective in the postwar era has been to maintain regional stability through strong bilateral ties.

Since the 1970's, the United States and PEG have engaged in strategic cooperation designed to counter the power of the USSR in Asia. The tragic events in China in 1989 do not negate the fact that United States interests are best served by a relatively stable United States-PEG-USSR relationship.

There is no multinational security arrangement in the region as there is in Europe. U.S. bilateral security guarantees and forward deployed forces are the glue which binds the region together, maintains stability, and preserves the peace.

Table 1.

THREAT IN KOREA

SEA nK vs. ROKN/7th Fleet: Greatly Favorable To ROK/US.
AIR nK vs. ROKAF/PACAF (-): Favorable To ROK/US.
GROUND nK vs. ROKA/EUSA: Greatly Favorable to nK.

	MANPOWER	TANKS	ARTY/MRL
nK:ROKA/EUSA	1.5:1	2.2:1	2.5:1

a. As little as one day warning of conflict.
b. nK ground forces are forward deployed (attack positions).
c. nK Arty/MRL density along DMZ is 2.5 times that of Warsaw Pact in Central Europe.

THE THREAT (TABLE 1)

The long-standing threat to United States interests in Northeast Asia is North Korea's unremitting hostility. It remains one of a handful of countries that have been accurately described as heavily armed, poverty-stricken, garrison states.

These characteristics, combined with its first generation revolutionary leadership, rigid ideology, and Orwellian control over its citizens, make North Korea unpredictable and highly dangerous.

Since 1970, North Korea has been engaged in a well-coordinated national effort to enlarge and modernize its armed forces.

The military balance on the peninsula, based on known personnel strengths, equipment, and force deployments, continues to favor North Korea. This situation is expected to improve as the Republic of Korea continues to modernize its armed forces.

A significant factor in the military balance is the level of Soviet assistance to the North—assistance which has continued in spite of the Soviet's newly declared security policies of "reasonable sufficiency" and "defensive defense" and increased diplomatic and commercial interaction with South Korea.

North Korea maintains a well-trained, highly-disciplined army, with numerical advantages over the EOK in most categories of combat power, including a 370,000-man advantage in personnel strength and superiority in tanks artillery and multiple rocket launchers. (Table 1).

The North Korean Special Operations Force, more than 80,000 strong, engages in terrorism, subversion, and intelligence collection, and represents a serious threat to South Korea.

Major North Korean ground forces are deployed well-forward, supported by extensive underground facilities and storage sites near the Demilitarized Zone (DMZ) This posture masks the North's intentions and considerably reduces warning time of an attack against the South.

The North Korean air force retains a numerical advantage over the ROK Air Force and has made qualitative improvements as well.

The acquisition from the Soviet Union of advanced combat aircraft (e. g. MiG–29, SU–25) modern radars, and newer air defense systems enhances North Korean air defense and intercept capabilities.

The North Korean navy enjoys a substantial advantage over the ROK Navy, particularly in submarines and fast attack patrol boats, as well as in new infiltration and amphibious vessels.

The North continues to utilize much of its industrial capacity to produce military items and will likely continue to do so.

Military spending by the North has remained relatively steady, averaging between 20 and 25 percent of Gross National Product.

North Korea's substantial military investment has come at the expense of balanced economic development.

North Korea is clearly one of the most heavily armed nations in the world and, unlike the nations of Eastern Europe, shows no signs of lessening its commitment to the Kim Il Sung personality cult, its obsessive militarism, or its own brand of communism.

Tension reduction and confidence building measures proposed by the United Nations Command and South Korea have been uniformly rejected by the North.

North Korea's bleak economic outlook and South Korea's advantages in population and economic growth notwithstanding, the military threat posed by North Korea remains significant.

V. THE UNITED STATES-ROK SECURITY RELATIONSHIP

It is to the benefit of the United States to foster democratic principles and free market economies. The United States-ROK alliance provides the security shield necessary to attain these goals in the Republic, given the threat from North Korea.

The United States-ROK military partnership provides unique joint and combined training opportunities for ROK, United States Forces Korea (USFK) and many other United States forces from off the peninsula—in the actual environment where they would likely fight in an emergency.

IMPACT OF UNITED STATES FORCES KOREA

Global perspective.—USFK represents the translation of the strategic concept of containment into reality on the Asian mainland and is thus an indispensable element in our security architecture. Specifically, USFK:

Represents a component of United States worldwide deterrence; graphically demonstrates by its presence the United States commitment to fulfill its collective security and treaty obligations; epitomizes forward deployment of combat forces to protect the vital interests of the U.S. represents commitment and continuity in an area of the world where meaningful reductions in East-West tensions have not yet occurred.

Rather, North Korea and the PRC have recently grown closer as each resists the changes sweeping much of the rest of the communist world.

The USSR has strengthened its security relationship with North Korea and has continued to supply modern weaponry.

North Korea continues its arms buildup and shows little desire to reduce tensions or change its "Stalinist" system.

Table 2.

REGIONAL MILITARY STRENGTH*

	JAPAN	OKINAWA	KOREA	TOTAL
ARMY	1,589	847	31,841	34,277
NAVY/MARINES	17,145	23,480	459	41,084**
AIR FORCE	8,198	7,984	11,419	27,601
TOTALS	26,932	32,311	43,719	102,962

a. Represents 4.5% of Army, 5.2% of Navy/Marines and 4.8% of Air Force.

b. Only land threat is on Korean peninsula.

c. Only Army combat forces west of Hawaii.

(*As if 31 Dec 89. **Does not include all of U.S. 7th FLeet.)

Regional perspective.—USFK, along with other United States air, sea and land forces deployed in the region, is a key stabilizing factor in East Asia and the Pacific. A unilateral United States withdrawal would create a vacuum that others would want, or would feel compelled, to fill. The regional balance of power would be upset, with global ramifications. Specifically, USFK:

Deters North Korean aggression, which if unchecked, would have repercussions throughout the region and the rest of the world.

Acts as the agent for the United States/United Nations to enforce and maintain the Korean Armistice, thereby contributing directly to stability in the region.

Maximizes United States influence in a region increasingly important economically, politically and militarily to the United States.

Helps ensure the security of Japan, which, besides being of obvious benefit to the Japanese, reassures neighboring countries worried about any possibility of Japanese military dominance in the region.

Comprises the only United States combat force on the Asian mainland acid the only Army ground combat force west of Hawaii.

Provides forces available for deployment to other potential trouble spots far from the United States mainland (or Hawaii).

Peninsula perspective.—USFK represents the power of the United States military instrument and the willingness to use it if necessary. Our presence has deterred North Korea for 37 years and has created the conditions which have allowed the ROK to emerge as a democracy and an economically advanced nation. Specifically, USFK:

Provides, particularly with ground forces, the single most effective deterrent to North Korean aggression; contributes significant ground combat power, disproportionately larger than the 2d Infantry Division (2ID) numbers alone would indicate; provides ground; air; naval; command, control and communications; indications and warning; and logistics assets and capabilities which the ROK military cannot replicate at present; fosters conventional (and nuclear) stability in one of the world's potential flash points; contributes directly to the steady maturing of the ROK military through combined operations and training, common doctrine and interoperability; and complements ROK forces as they move toward parity with the North.

ROK MILITARY CAPABILITIES

Since the end of the Korean War, South Korea, assisted by the United States, has continually expanded its military capabilities.

Today, the ROK military, composed primarily of conscripts, is a well-trained, disciplined, and capably-led force.

South Korea has devoted approximately one-third of its defense budget for force improvements and modernization since 1984.

Projected ROK Force Improvement Program (FIP) funding for 1990–95 is $24.3 billion, representing a twofold increase over the 1985–89 funding level; and the ROK decision to spend over $4 billion to purchase F/A–18 aircraft under the Korean Fighter Program is an example of the FIP at work. This aircraft will significantly improve ROK Air Force capabilities and enhance deterrence on the peninsula.

In 1990, ROK purchases of military equipment and supplies from the United States and third countries are projected to reach $1 .45 billion and $275 million, respectively.

SHARING THE COSTS OF DETERRENCE

The ROK shares defense costs at least as much as other United States allies.

Over the past two decades, the ROK has increased defense expenditures significantly more than the United States or any of our other allies.

On average, annual defense spending has traditionally represented one-third of the ROK national budget; with military personnel costs only about a third of those for the US, a much larger portion of the ROK defense budget can be devoted to other categories, such as procurement of new equipment and other force modernization issues.

South Korea devotes a significant portion of its population to defense.

With universal conscription (30 months) and a strong reserve program, the percentage of Koreans receiving military training is more than twice that of the United States;

The ROK provides nearly 6,000 soldiers for duty in United States Army units based in Korea under the Korean Augmentation to the United States Army (KATUSA) program.

ROK support of United States forces in Korea amounts to $300 million in direct contributions, of which $1.2 billion is rent-free land.

In the future, the ROK is expected to increase direct cost sharing contributions, as well as expand the scope of cost sharing into a wider variety of areas.

Stationing forces in Korea represents by far the least costly method of maximizing United States influence in the region. The only way to save money would be to disband the forces and dispose of the equipment.

A unilateral withdrawal of United States forces in an attempt to save money runs the risk of being dangerously counterproductive, given the present political-military realities on the peninsula.

Such a move could well be interpreted by the North as a weakening of United States commitment; a unilateral withdrawal, with no change in United States obligations under the Mutual Defense Treaty, would weaken deterrence and would ultimately cost far more in the event redeployment in a crisis was necessary; and redeployment in a crisis, in time to make a difference, is by no means assured given the short warning time predicted by intelligence agencies.

VI. U.S. OPERATIONAL REQUIREMENTS

Improvements in the broad areas of sustainability, force structure/ modernization, and information management must continue.

Sustainment of United States forces in time of war is our major concern. Problem areas include:

Modern Munitions: Critical shortages exist in preferred munitions. These munitions provide the armor-piercing capabilities needed to counter the North Korean armor threat and air-to-air capabilities against the numerically superior North Korean air force.

The intensity of initial combat requires pre-positioned resources in country to sustain combat forces.

Reserve stocks in the Pacific theater do not satisfy our critical needs. A lengthy delivery time is required to receive materials from the continental US. In wartime, we cannot rely on the already overburdened strategic airlift to haul our munitions across the Pacific.

Pre-positioned War Reserve Stocks (PWRS): Inadequate stocks of major end items, repair parts, spare parts, and medical items persist.

Shortages in major end items of equipment are particularly acute for combat vehicles, howitzers, tactical radios, and night vision devices.

There is an urgent need for funds to construct additional covered storage areas for war reserves.

In-country petroleum, oil, and lubrication stocks, critical to the sustainment of allied forces in Korea, are partly stored in inadequate, vulnerable facilities. Delivery lead time and exposure to hostile action make dependence on offshore resources an Achilles heel for United States forces.

Medical Support. Two critical areas are Deployed Medical Systems (DEPMEDS) and the Frozen Blood Facilities:

DEPMEDS is necessary to provide a field hospital system that can be readily relocated. It is also essential for treating patients who cannot be medically evacuated out of country.

Frozen Blood Facilities are vital to our forces in the Pacific. They ensure that sufficient blood products are available during the early stage of armed conflict and will allow the command to operate independently of outside sources.

Force Structure/Modernization remains a problem as we attempt to maintain our forces to meet the Northeast Asia Troop Strength ceiling and other directives. Our primary concerns are:

2d Infantry Division (2ID) Army of Excellence (AOE) Design.

Delivery of modern weapons systems is on track; however, the facilities needed to support them are lagging far behind.

Without facilities, AOE conversion must be implemented on a catch-as-catch-can basis, creating adverse affects on training, sustainability, readiness, and quality of life.

APACHE (AH-64) Helicopter Conversion. With its lethal antitank weaponry and all-weather, day and night capability, the APACHE is essential to the defense of the ROK.

A considerable portion of the construction for stationing the APACHE was accomplished by the ROK Army as a Combined Defense Improvement Program project.

The APACHE flight simulator facility is in the fiscal year 1991 Military Construction Army (MGA) program. The simulator is vital because of airspace limitations and lack of ranges to accommodate the aircraft's weapons systems.

Funding for this $1.5 million construction project must be protected in budget reviews. Without the simulator, pilots cannot maintain proficiency.

Unmanned Aerial Vehicle/Remotely Piloted Vehicle (UAV/RPV).

UAV/RPV will provide critical targeting capabilities, such as: penetration of enemy defenses survey of the "reverse slopes" of the mountainous North Korean terrain, reconnaissance of target areas and real-time reporting of battlefield information to commanders and fire support officers.

The requirement for such a capability is illustrated by the problem of locating and neutralizing North Korean hardened artillery sites (HARTS) These heavily fortified sites are vulnerable to attack only when the enemy's artillery is deployed for firing. UAV/RPV would be able to take advantage of this window.

Information Management. Two areas of USFK concern are:

Fiscal year 1990 Automation Cap. The automation cap for fiscal year 1990 has severely limited our automation capabilities, completely eliminated the purchase of new computer hardware, and forced the reduction of civilian personnel spaces.

The net effect will be to hamper our ability to provide timely information to the combat support activities of this command.

If this limitation continues, the inefficiencies of old systems or the need to return to manual operations will undermine USFK's combat readiness posture.

Korea Digitalization and Reconfiguration. This initiative will increase the current fiber optics communications capability within Korea by providing digital communications in some areas and backup communication capability in others. The resulting improvements in command, control and communications will enhance our warfighting capability.

VII. US-ROK ECONOMIC TIES

The United States-ROK economic/trade relationship is strong and growing stronger. Considerable progress has been made in addressing the trade deficit, as well as in resolving a number of difficult bilateral trade issues.

In 1989, total trade between Korea and the United States reached nearly $40 billion.

Korea's bilateral trade surplus with the United States totalled about $5.2 billion in 1989, 40 percent less than the $8.7 billion surplus recorded in 1988 and 45 percent less than 1987.

United States exports to Korea increased about 24 percent to $16 billion in 1989, following a 45 percent increase in 1988. Korean exports to the United States actually declined slightly in 1989.

In 1988 and 1989, some long-standing trade disputes were resolved. Last May saw the successful conclusion of "Super 301" negotiations. This agreement, when fully implemented, has the potential for providing significant benefits to United States exporters and investors.

United States officials will closely monitor developments in Korea's protection of United States intellectual property rights, work closely with Korean government official to ensure the full and timely implementation of the "Super 301" and other bilateral agreements, and generally encourage further liberalization by the Korean government.

VIII. CONCLUSIONS

We are now seeing the basic changes in the international environment that our grand strategy was designed to foster. While we must be flexible enough to take advantage of these changes, it is far too early to "declare victory" on the Korean Peninsula and abandon the approach that has maintained the peace and served basic United States interests for so long.

United States strategy and policy toward Northeast Asia and Korea has been consistent and successful for 37 years. The nations of the region are too well armed and are too diverse politically, economically, and culturally to expect continued peace and stability absent United States leadership and security guarantees.

The ROK represents a resounding success for United States postwar strategy and policy. Our military presence reinforces that success by maximizing deterrence against a dangerous and unpredictable adversary.

Reducing tensions and transitioning to a less threatening political environment in Northeast Asia will require artful statecraft, backed by credible military power. USFK, by providing such power, remains essential to peninsula and regional stability.

Major adjustments to USFK as presently structured and deployed should be evolutionary, strategically and tactically sound, and follow, rather than anticipate, an enhancement of ROK military capabilities or a lessening of the threat; unilateral cuts would ignore geopolitical realities, weaken deterrence, jeopardize alliance solidarity, lessen United States influence, possibly lead to an intensified arms race, undercut democracy and stability in the ROK, and constitute false economies.

Verifiable, mutual and balanced force reductions should be vigorously pursued via South-North political dialogue. Within this context, United States (and ROK) forces can be most safely reduced.

BASE CLOSURES

Senator INOUYE. Thank you very much, General.

Recently our Defense Secretary visited Korea and as part of his visit made known that we will be closing three bases. Was this decision reached after consultation with the Koreans?

General MENETREY. I am afraid not, sir. We did not have an opportunity to consult with the Koreans prior to that announcement of the three airbase drawdown. Those three bases at Kwangju, Taegu, and Suwon, are actually ROK Air Force bases and we have tenant units on those bases.

So we did not have an oportunity to consult with them prior to the announcement of those base closures. About 3 or 4 days before the actual announcement here, we got word of the closures and, of course, myself and the Ambassador went directly to the Korean Government at that time.

Senator INOUYE. What has been the reaction on the part of the Korean Government?

General MENETREY. Mostly that consultation would have been preferred. There has not been an overly dramatic reaction in terms of the action itself. We are currently working with the Ministry of National Defense to determine a plan. Those three bases are primarily, not entirely, utilized for augmentation forces that come into the Korean Peninsula in the event of need. So our effort now is to keep as much of that capability as possible. There are stores there, war reserve and fuel and so on, that we want to keep there, and we can, perhaps, have the Korean Government pick up some of the responsibility to allow United States to keep as much of that there as possible.

You could call it a cost sharing or host nation support. We are currently talking to them about that.

Senator INOUYE. We have many reasons for being there—the United Nations, our national interest. But there is also another reason, military reason, to fill in the weak gaps that may show up in the Korean force structure. Where are the weak gaps in the Korean structure?

General MENETREY. Sir, they are strong, as you know, in terms of soldiers. They have good soldiers, well trained, well led. Where their gaps are is in terms of equipment, certain types of equipment, more than others.

[Deleted]. But they do not have an antisubmarine capability that is adequate, and at sea they have a shortage of amphibious lift.

Their forces, after all, were more or less designed to be complementary to the U.S. forces in terms of augmentation and so they are going to have to redress those things that the United States best provides to get a self-sufficient status.

KOREAN PEOPLE FAVOR UNITED STATES PRESENCE

Senator INOUYE. Whenever there is a demonstration, student or otherwise, it gets on the networks, prime time, thus giving the people of the United States, many of them, an impression, real or otherwise, that the Koreans do not like our presence there. What is your assessment, sir?

General **Menetrey**. Sir, every poll that is taken--and there are a number of them—indicate somewhere between 85 and 90 percent—it varies by poll—of the Korean people who support our presence in Korea. That is the people.

In terms of the government, it is unanimous, all opposition parties included. They support our presence and vociferously, I might say.

The student or radical element—some of them are a little old to be called students—there is an anti-American theme in their demonstrations at times, although that has decreased lately as other issues have become more popular or more popular in the sense of gaining public support.

We have had a decrease in anti-American themes of demonstations. There still are some. But in the last 6 months it has gone down somewhat dramatically.

Senator **Inouye**. As you know, General, we will be visiting your command in April. We look forward to seeing you there, sir.

General **Menetrey**. I certainly look forward to having you there, sir.

Senator **Inouye**. Senator Stevens.

Senator **Stevens**. I have read your statement, General, and I look forward to that trip. In the interest of time, I do not have any questions. We will pursue them in April.

I yield to my friend from New Hampshire.

Senator **Inouye**. Senator Bumpers.

Senator **Bumpers**. Senator Rudman was here before I was.

Senator **Rudman** Actually, I am not going to leave here anyway until I hear what Senator Bumpers has to say. My good friend from Arkansas and I had a very spirited debate last year, and I think it was a good debate, a worthwhile debate. It brought out a lot of issues that have to be brought out.

As you know, General Menetrey, I visited your command last August. Unfortunately, you were back here, but I had just an outstanding visit with General Burba, who, of course, now has been promoted to four-star and is Commander of FORSCOM.

I had a very interesting visit, a rather sentimental return to that country after not having been back there since the Korean war. I was impressed by the caliber of U.S. forces there. I was also somewhat disappointed at the lack of the Koreans, in light of their recently resurgent economy, to equip their own forces better.

STATE OF KOREAN EQUIPMENT

As you know, I spent a good deal of time with the Korean forces, as well as with the United States forces, and I guess my first question—and I will be brief because of time constraints—is this: Are you satisfied that, with the pressure I know you and your predecessors have brought upon the Korean army in particular, which is their main strength and will be for sometime, are they coming up to speed in things like multiple rocket launchers, new artillery? Some of their artillery is vintage Korean war.

Are they starting to manufacture tanks, counterbattery equipment, radar equipment at the rates that will bring their force up to at least parity in terms of equipment, if not with force structure, with the North Korean forces? That is——

General **Menetrey**. Sir, they have an investment program, a so-called Force Improvement Program, and they put about one-third of their defense budget into investment; that is, purchase of equipment.

They have doubled their investment for this 5-year program over the last 5-year program in terms of amounts. They are producing the K-88 tank, which is a very good tank. It is mostly United States and has a German motor, but it is being produced in Korea. That is a very good tank.

They have a new APC they are producing in numbers. [Deleted.] So they have in their basic systems an indigenous capability to produce and they are producing.

You mentioned a couple of other things, though. [Deleted.]

They are a different kind of system—smaller and more of them and so on—more of an area weapon.

So I would say that they are cognizant. It is part of my responsibility to tell them what they lack and when I do that, they are responsive within their means. They have their own problems in terms of what they can afford, but I would say that they are producing good equipment. It is coming off the production line. You can quarrel with the amount and the number and so on, but their equipment will be superior to the North's when they field the new family.

BALANCE OF TRADE AND GNP

Senator **Rudman**. There was some criticism during the debate here in the committee and on the floor last year vis-a-vis the percentage of their GNP in light of their current prosperity and their favorable balance of trade with the United States. What is that percentage at this time that they are spending of their GNP, which is a rapidly rising GNP in terms of value of percentage of growth increase?

General **Menetrey**. As you are very well familiar, in 1987-88 they led the world with something like 12-percent growth. Last year they did not do as well, at 7 percent. Their trade balance with the United States has improved from our perspective. It is now about half what it was 2 years ago, and imports to Korea from the United States have gone up; that has been the reason for the trade imbalance getting better, not that their exports have decreased significantly. Although, I did notice that they only sold 51 percent as many automobiles in the United States last year as they did the year before.

Their percentage of GNP devoted to defense in 1989 was, I think, 5.4. It is probably going to be a little less than that this year; although their defense budget went up 10 percent, it did not keep up with the increase in their government going up.

So they traditionally have been around 5 percent of GNP in terms of their defense spending.

ROLE OF 2D INFANTRY DIVISION

Senator **Rudman**. Finally, in the interest of time—we only have 20 minutes left—let me just ask this question. My clear understanding when I was there, having met with your commanders, the Korean commanders, from various corps and military and political people, clearly was that the presence of the 2d Infantry Division and its supporting elements was in many ways important not only for its military force, which it represents, which is not insubstantial, but even more importantly as a clear message to the North Koreans, who nobody will disagree, are superior militarily at this point because of their enormous devotion of resources to defense, as a clear indication to the North Koreans that the United States considers that still a place where, if push came to shove, we would probably come to fight, if it were necessary. I have no doubt about that in my own mind.

Is that still pretty much the position that we take, that we really base our presence there on—that we have not only an important military presence in terms of capability but 40,000-some-odd troops, of whom maybe 18,000 or 19,000 are fighting troops, or 20,000, is not a large number compared to the North Korean ground forces. It is still very much an important symbolic presence in terms of a part of the world which is still terribly unstable. Is that a fair statement, General?

General **Menetrey**. The single greatest deterrent is the 2d Infantry Division. The ground force always provides that degree of assurance that no other force could match, and that is not only my opinion; it is the opinion of all of the senior Korean officials whom I deal with, and it is also the opinion of the President of the Republic of Korea, and he assured not only me but Secretary Cheney of that fact.

Senator **Rudman**. Thank you. I do not know that I have had a chance to share this with my colleagues, certainly with Senator Bumpers, but I will tell you just a quick 1-minute anecdote that really was very instructive to me.

General Burba very kindly arranged with the field force commander of the Korean corps in the Chorwan-Kumhwa area for me to revisit a very special place, and we actually went out into the DMZ, actually up on to the North Korean border on a hill next to Pork Chop called Sugar Loaf Hill, just slightly east.

We were not there for more than 15 minutes when a North Korean patrol, reinforced, came out of the valley and up on the hill opposite us, and they were very alert and they were watching everything that was happening. This is on a peninsula that is fairly wide at that point, and yet they were there. They are very, very vigilant along that border and they obviously—from looking through glasses and binoculars—were in heavy force, much heavier force in the Chorwon-Kumhwa area, which is the natural approach route, of course, to the South, than any Korean or United States forces were in the area. So it was very significant to me.

Anybody who doubts the threat there ought to go take a look up there. It was a long walk up, but it was worth it when we got there.

Thank you, General.

General **Menetrey**. Yes, sir. One of the misnomers over there is "demilitarized zone."

Senator **Rudman**. For sure, as was "police action" in 1951.

Senator **Inouye**. Senator Cochran.

Senator **Cochran**. Mr. Chairman, thank you.

STABILITY OF ROK GOVERNMENT

I was curious as to your reaction to the preemptive coalition building that Roh-Tae Woo has apparently developed as a strategy for dealing with the opposition party headed by Kim Dae-Jung. What is your reaction as to whether or not that will provide a greater degree of stability for the ROK government?

General **Menetrey**. It is not exactly my field, but I have been there a while and know most of the actors. My assessment is it is sort of a political masterstroke. Now it could turn against him, depending on who is in line to succeed him and so on, but right now he has at one stroke, if you will, assured himself of a sufficient majority in their National Assembly to take care of the bills that are currently before them which deal with security issues and other things that are important to them.

So the President of the Republic of Korea, who I had known before he became President, exhibited to me the ability to change, to modify his views and to adapt. I would classify him as a great politician.

Senator **Cochran**. I was in Korea about a year ago last January with Senator Dick Luger and when we were there one of the swirling controversies was the United States property in Seoul, the golf course and other recreational property that is very visible there. Has that issue been resolved?

General **Menetrey**. No, sir. As a matter of fact, we have only a handshake agreement that we will move out of most of the golf course. The golf course in Yongson is not all golf course. It has some embedded facilities—communications, helicopter pad, sewage lines, et cetera. The Koreans are currently building another golf course for United States a little further south.

But we do not have a written agreement on the relocation of the headquarters out of Seoul, not only U.S. elements, but the combined headquarters. I expect to get such an agreement signed. The Minister of Defense assured me that he would do that next month, finally. But the short answer to your question is that this issue has not been completely resolved.

STRATEGIC VALUE OF PENINSULA

Senator **Cochran**. On page 6 of your prepared statement I notice that you made a comment that a unilateral U.S. withdrawal would create a vacuum that others would want or would feel compelled to fill. I cannot think of who "the others" would be. Who do you think they would be?

General **Menetrey**. Sir, if you look at that peninsula and its history, it has long been viewed as a bridge between Asia and Japan and many armies have marched across it in different directions.

It is too critical an area of the world to leave in a vacuum. Now who would fill it? I do not know. As I indicated in my statement others might have an urge to fill it. Whether it be the Japanese in terms of their defensive-mindedness, it has always been a critical area for them, or the Chinese, or whomever it might be.

Geostrategically, it is a very critical area of the world. It has been for a long time. So I think our presence adds a great deal of stability to that area, and if our presence was withdrawn, there would be a less stable situation. Who would come in, I am not sure.

There are four major powers in the world and their interests intersect on that peninsula, and one of the four is going to feel the urge to predominate, depending on their internal situation and so on.

Senator COCHRAN. Thank you, Mr. Chairman.

Senator INOUYE. Senator Bumpers.

Senator BUMPERS. General, it is going to be a light session. There is not any point in covering all the ground that we have covered both here and in my office. I think we understand each other's position reasonably well. But let me just ask you a few general questions.

[Deleted.]

General MENETREY. [Deleted.]

Senator BUMPERS. You think they might just go it on their own?

General MENETREY. It depends on——

Senator BUMPERS. Would you launch an invasion if you did not know there was some industrial strength behind you to resupply you, as your tanks were destroyed that you were going to be resupplied, for example?

General MENETREY. It depends on their assessment of the situation, sir. Let me give you an example. [Deleted.] It is a hypothetical situation. It all depends on what goes on in the mind of one man, Kim Il-Sung, and if he decides that the Chinese are going to come in, regardless of whatever he does, he might do it.

I am not saying that he will do it. I am just saying there is a possibility, the hypothetical possibility.

Senator BUMPERS. General, in my office we discussed this, and this is a closed session. [Deleted.]

General MENETREY. [Deleted.]

Senator BUMPERS. [Deleted.]

General MENETREY. [Deleted.]

Senator BUMPERS. [Deleted.]

General MENETREY. [Deleted.]

[Deleted.] We will now change that equation and it will take more for them to become fully operational. [Deleted.]

LIKELIHOOD OF FUTURE STABILITY

Senator BUMPERS. You were quoted, General, last August as saying: "There should be stability on the Korean Peninsula without the United States being part of the equation by the mid-1990's." Is that still true?

General MENETREY. Sir, it depends on the actions of North Korea. I would say that if the current trends continue that is probably a reasonable estimate. But the problem is that the regime up north is so unpredictable and indeed hard to describe even in the degree that they have this centralized authority. So it depends on their actions. For example, many people have asked me, you know, you have 43,000-some-odd U.S. troops there, Air Force and Army mostly. What if they are replaced by Koreans with like equipment; would that provide the same degree of stability or deterrence, and the answer is no, of course not.

So then how much would provide the same stability and deterrence? It would be more, but I do not know how much. That equation is in the mind of Kim Il-Sung. So yes, I would say by 1995 it should be more stable on the peninsula, with or without U.S. forces.

Senator BUMPERS. Is that stable enough for United States to leave?

General MENETREY. What is the U.S. interest? That depends on whether we leave or not. What is the U.S. interest?

TROOP PULLOUT

Senator BUMPERS. You said on page 9 of your statement that a unilateral withdrawal of forces in order to save money runs the risk of being dangerously counterproductive.

General MENETREY. Yes, sir; I believe that.

Senator BUMPERS. Well, now Secretary Cheney says we are going to pull 5,000 troops out; is that dangerous?

General MENETREY. This is an action on which we have consulted. It has not been, I think, publicly announced, but it is common knowledge, and we have discussed the withdrawal of around 5,000 troops over the next couple of years with the Korean Government. How we go about replacing the withdrawn United States capability with Korean capability and so on is the issue, whether it is a stabilizing or destabilizing influence.

I think we can do it. The figure is mine. The plan is mine. And I think we can do it without destabilizing.

Senator BUMPERS. General, sometimes we get wrapped up in an issue like this, as we often do, and I stop and reevaluate my own position to make sure I am not just interested in winning a battle regardless of the consequences. I try to go back and review the whole thing and see is the basis for my original concern still there.

I must say that my feelings in analyzing all the data and so on have not changed. I think it is foolish. I am not winning this battle, but I do think the debate Senator Rudman and I had on the floor last year was instructive and helpful. But there is one thing that I want to continue to point out. That is, No. 1, I have never suggested that we not leave an air force and naval and communications presence there, nor have I ever suggested that we do anything except make certain that Kim Il-sung knows our commitment to South Korea is there and total.

What I have been concerned about is the number of dependents, the number of employees, number of troops there, the costs and balance of payments, and what I think is a military sort of overkill. I do not think it is necessary. And, above all, I do not think South Korea—you said the government over there and all the players, whom I am sure you do know, favor our presence there. I must say if I were a leader of South Korea, based on the present situation, I would certainly favor our presence being there.

But when it comes to this GNP commitment on defense, the actual figures are that in the middle of the 1980's they were putting over 6 percent of their GNP into defense and this year, 1990, the figure is not going to be a little bit less; it is down to 4.75 percent of GNP. And I keep asking myself are we just suckers? If that threat is really there, why is their percentage of GNP and their commitment to their own defense not going up instead of down?

COST OF U.S. PRESENCE

No 2, why are we allowing them to pay United States about $7,000 per troop there, whereas the Japanese pay United States $40,000? I do not understand that. Would you comment on those two things?

General **Menetrey**. That is a difficult equation. Let me give you an example. The bulk of costs in both cases, Japan and the Republic of Korea, is land, and for most of the Japanese equation that is counted as a direct cost. In Korea, they do it a different way. They do it by eminent domain and the result is the same—rent-free land, but the cost is accounted for differently.

So I think that if you look at the per capita income or GNP or GDP or whatever gauge you want to use based on the ability to pay, the Koreans put several times what the Japanese do into support. It varies, 5, 6, 10 times, whatever it is. But it is significantly greater.

So it is very difficult to come up with those kinds of numbers. Whether you look at a trillion dollar economy or a $200 billion economy, it makes no difference. You cannot compare Japan to anything except the United States, perhaps.

Senator **Bumpers**. Well, I notice in all the press reports Secretary Cheney went over at least ostensibly, one reason for going, was to put the bite on the South Koreans for a heavier contribution.

General **Menetrey**. He did that, sir.

Senator **Bumpers**. But I also saw the same press report said that the Koreans were noncommittal.

General **Menetrey**. No; they have acknowledged, sir, that they are going to have to increase their contribution. Now we are arguing about how much.

Senator **Bumpers**. Well, General, you know, Kim Il-Sung and Fidel Castro and, of course, the Chinese are pretty lonely in this world today, and I would hate to be in either one of their shoes. But I keep coming back to Kim Il-sung and I ask myself if the South Koreans really consider him the threat that you obviously do, and they apparently do, I do not understand why 13,000 troops there in the form I mentioned a moment ago would not be a sufficient deterrent, particularly if we let them know on a regular basis that our commitment to South Korea is there just as it is to the NATO alliance, just as it is to West Germany if they are invaded.

I keep asking myself, what are we thinking about when here is a country with twice as many people and they are not willing to defend themselves, obviously, because they are depending on United States to do it for them. It is just that simple to me. They have twice as many people, their economy is 10 times more vibrant, and yet Kim Il-Sung keeps about 1 million people under arms. If he wants to do that and starve his people, that is his business. But if that really represents the kind of threat South Korea says it does, with the kind of economy they have gotten, with twice as many people, if they had the same number of people it ought to be only half as big a burden.

So I just do not understand why Uncle Sugar has to spend between $2.5 billion and $3 billion a year for something that is not likely to happen and, if it did happen, saving that money really would not make much difference in the outcome.

I will close on that, Mr. Chairman. Thank you, General.

General **Menetrey**. May I comment on that?

Senator **Bumpers**. Certainly.

General **Menetrey**. As far as the Koreans not defending themselves, as I mentioned, in percentage terms, their expenditures on defense are far greater and their increase has been far greater than any of our other allies. They take their defense very seriously and they provide, as you know, 95 percent of the forces.

It is the deterrence of war on that peninsula that should be of concern, because I do not think we would abandon them. [Deleted.]

Furthermore, if there was a war on that peninsula, for the first few weeks it would be one of the bloodiest wars in history. There are two very heavily-armed opponents staring at each other across a narrow strip of land and that would be a bloody encounter.

REVISED THREAT ASSESSMENT

Senator **Bumpers**. General, I do not want to take the last word away from you, but one of the things that we have been trying to get the Defense Department to do, and we have not yet gotten it—and if we do not get it before markup this fall then we will just have to sit up here and do the best we can in deciding what we want our force structure to be—but what we have been trying to get Secretary Cheney to do is give United States a threat assessment in light of all the dramatic changes that have taken place in Europe.

I mean, we have spent $2 trillion in the last 10 years preparing for war on the plains of Europe, a threat which has been very dramatically reduced. Now one of the things that disturbs me, quite frankly, is the threat assessment never seems to change there, and maybe it has not. You say it has not, that Kim Il-sung is still the same lunatic he always was and, therefore, capable of doing some aberrational things. I recognize that.

But what I am saying is, even in light of the threat assessment we ought to also reassess whether what we are doing is necessary to meet that threat or not, and that is where you and I—of course you are the military authority on this and I am the layman. Still, we are operating under budget constraints here.

I told General Powell the other day—a man for whom I have immense respect—incidentally, he handles himself about as well as anybody who has ever come before this committee and is a very wise man, in my opinion—but it is hard for United States to think that the Pentagon is serious sometimes when, for example, everything has changed. The threat assessment is obviously greatly reduced. We are operating under budget constraints.

You know, we do not have the luxury of saying we want it all. We have to come up with the numbers that fit the budget, not necessarily just to establish a peace dividend but to try to get the deficit down. And it is hard for me when they come out and say, well, it is true the Soviet threat is dramatically reduced, but the Third World is now a big threat.

Well, what the hell are we talking about? What is new in the Third World that will require $305 billion when we have been spending all this money to fight a war in Europe? It is hard for United States to believe that they are serious sometimes when we see things like that.

All we are asking for is just a threat assessment on which we can make reasonable judgments. You are a good witness. Thank you, General.

General **Menetrey**. Thank you, sir.

Senator **Inouye**. Senator?

NORTH KOREANS IRRATIONAL

Senator **Rudman**. Just quickly, on Senator Bumpers' point I would just make one observation and see if you agree or disagree. It seems to me that whatever you want to say about anyplace else in the world, all the intelligence—and I hope those who have not looked at it do look at it—indicates that that government in North Korea is still absolutely a lunatic fringe government. If you look at the things that they say, the things that are reported, these are not rational people. Castro, you may not like him, but he is rational. Besides, he has got a lot of water between him and Miami.

I think that the intelligence that you are looking at tells you not just that there is a threat but, even more importantly, that you cannot gauge the intent of the opponent. Is that an accurate statement?

General **Menetrey**. Yes, sir; it is for me. I look at that intelligence every day.

Senator **Rudman**. Second, am I not correct that most of those infantry forces, they are all unaccompanied tours, are they not?

General **Menetrey**. We are 93- to 94-percent unaccompanied tours; yes, sir.

Senator **Rudman**. So I seriously question. If you take 10,000 troops out of Korea and put them down at Fort Benning, if you want to do a real cost study as to what that saves us, I am talking fighters—people up there who are doing the job, in the 2d Infantry Division. Those are the folks we are talking about. If you want to draw down supply, draw down logistics, I do not have a problem with that. But if you took 10,000 troops that are unaccompanied essentially out of Camp Casey and move them on back, what do you save, unless you muster them out of the Armed Forces?

That is something that is overlooked. I say in many ways they are cheaper to maintain in Korea than they are here.

General **Menetrey**. Sir, they are.

Senator **Rudman**. Thank you.

Senator **Inouye**. General, I have just one question, actually some observation. You wear several hats. There is one hat that most Americans are not aware of or they have just conveniently forgotten, and that is the U.N. hat. As a result of that hat, there is some legal justification for part of our presence in Japan.

U.N. PRESENCE

What is the U.N. presence in Korea now besides American?

General **Menetrey**. Sir, I am the United Nations Command commander—CINCUNC. In any event, he was the one who signed the armistice. We do not have peace in Korea, as you know; it is a military armistice. And CINCUNC, Mark Clark, at the time, signed the armistice. Kim Il-Sung and a Chinese general signed it for the North. It is only military-to-military, not-government-to-government agreement.

So that is still the basis for the peace on the Korean Peninsula. As far as the U.N. presence in Korea we currently have nine member nations represented, most of them with a very small delegation—a military attache in some cases—to include Colombia, by the way. But, in any event, then we have an honor guard, mostly United Kingdom types, Gurkhas, some from Thailand, occasionally. But just an honor guard.

So there is a symbolic presence. The one in Japan you mentioned is the U.N.-Japanese SOFA. It is the only basis for access we have to certain Japanese bases, our bases, in Japan, without permission of the Japanese in the event the U.N. command needs them.

Senator **Inouye**. So any sort of unilateral move there may have this U.N. effect, then?

General **Menetrey**. Yes, sir. If the armistice is replaced, and hopefully it will be someday, then the United Nations Command I think will go away, and it should.

But until the armistice is replaced, it is a very uncertain thing; who is responsible for what becomes very uncertain.

Senator **Inouye**. I would like to join my colleague, Senator Rudman, in his assessment of North Koreans. We are not dealing with someone who is predictable. I wish we were. But that is the reality of life.

I would like to, on behalf of the subcommittee, thank you for your candor this morning and to commend you for the way you run the show there. Once again, we look forward to visiting with you in mid-April.

General **Menetrey**. Thank you, sir, pleasure to be here.

ADDITIONAL COMMITTEE QUESTIONS

Senator **Inouye**. We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO GENERAL MENETREY BY SENATOR INOUYE

THREAT AND MILITARY BALANCE IN KOREA

Question: General Menetrey, last year you told this committee that North Korea maintains a numerical advantage in most categories of combat power. You stated that the North possessed a 300,000-man advantage in personnel strength, A 2.5 to 1 advantage in tanks, a 1.8 to 1 superiority in artillery, a massive advantage in multiple rocket launchers, and a "numerical" advantage over the Republic of Korea (ROK) Air Force. General, could you please give us a qualitative assessment of the North's capabilities as compared to those of the ROK forces they would face?

Answer: [Deleted]

Question: General Menetrey, how will the changes in the Soviet Union affect the ability of the North Korean's to continue buying more modern weapon systems? Is it true that North Korea is becoming even more isolated as other communist countries are moving faster toward reforms?

Answer: [Deleted]

Question: General Menetrey, last year, you told us that there is a reluctance by the communist nations to extend loans or conduct banking with North Korea. Also, the North Korean trade deficit continues to grow, further exacerbating an already poor economic situation. In light of these facts, how much modernization of military forces can the North afford? Will the North ever be able to keep pace with the South's rapid military improvements fueled by its tremendous economic growth?

Answer: [Deleted]

Question: General Menetrey, over the past two decades the Republic of Korea (ROK) has increased its defense expenditures significantly more than the United States or any of its other allies. Since 1984, South Korea has devoted approximately one-third of its defense budget for force improvements and modernization. It appears likely this trend will continue. Projected funding for the ROK force improvements program for 1990-95 represents a twofold increase over the 1985-1989 funding level. In light of the strength of the South Korean economy, its continuing force improvements, and modernization plans, why is it necessary for the U.S. to maintain 43,000 troops in South Korea, at an annual cost of $2.4 billion?

Answer: The U.S. maintains forces in the Republic of Korea (ROK) to satisfy its commitments under the U.S.-ROK Mutual Defense Treaty and to discharge its responsibilities for armistice maintenance on behalf of the United Nations. However, these formal obligations do not represent the fundamental reason for the U.S. presence in Korea. The reason the U.S. undertook these obligations was because we determined that it was in our national interest to maintain stability on the Korean Peninsula and throughout Northeast Asia. The formal agreements that I cited, as well as our military presence on the Peninsula, grew out of this fundamental decision concerning U.S. interests. The U.S. military presence in the Republic has succeeded in maintaining stability and serving U.S. interests for more than 37 years.

U.S. Forces are structured to complement ROK military capabilities. As the ROK modernizes its forces through a series of force improvement programs, the U.S. should expect to be able to adjust its force presence accordingly. Some of the capabilities which the U.S. provides to the combined forces are relatively easy to replicate, while others will require a significant amount of time and a substantial investment of defense funds. The U.S. military presence should be adjusted as the ROK military acquires the required capabilities to satisfy its own defense needs; however, as long as the stability of the Korean Peninsula and Northeast Asia remain national interests of the U.S., we should seek to maintain some level of military presence in the Republic.

Question: General Menetrey, from which units or other categories are the 5,000 troops scheduled for phased withdrawal to be taken? What is the timetable for their withdrawal?

Answer: The Department of the Army has not yet approved the plan we submitted on force adjustments in Korea. Our proposal for force adjustments amounting to about 5,000 personnel includes a balanced reduction from combat support and combat service support categories. We are prepared to adjust our forces over a 2 to 3 year period. The exact timetable, however, will depend on the outcome of consultations with our ally concerning the need for the Republic of Korea to assume additional responsibilities as a result of our force adjustments.

Question: General Menetrey, U.S. Force projection in the Pacific rim is generally acknowledged as based on air and sea power. Why is the U.S. maintaining an infantry division in the ROK?

Answer: Force, or power, projection is based to a considerable degree on air and sea power, but power projection is only one element of our overall national military strategy. Another key component of that strategy is forward deployed forces, which, in the case of the Republic of Korea (ROK), is epitomized by the 2nd Infantry Division (2ID). The primary mission of all U.S. Forces in the ROK is deterrence. In a conventional context, the presence of ground combat power -- in this case the self- sustaining, self-defending 2ID -- is the essence of deterrence, demonstrating to friend and foe alike the resolve of the U.S. to fulfill its treaty commitments. Our ground presence, coupled with our in-country air and naval assets, offshore augmentation forces, and the ROK Armed Forces, have successfully fulfilled the mission of deterrence for 37 years.

Question: General Menetrey, what is the current combat/non-combat ratio of U.S. Forces in Korea and how will that ratio be affected as withdrawals occur?

Answer: [Deleted]

BASE CLOSURES IN KOREA

[Deleted]

Projections on what effect troop reductions will have on the combat/non-combat ratio are premature since a force adjustment plan has yet to be approved by the Department of the Army. However, if our proposed plan to cut non-combat forces is approved, the ratio would change accordingly.

Question: General Menetrey, the Secretary of Defense announced that several U.S. bases in the Republic of Korea -- Suwon, Kwangju and Taegu Air Forces bases -- would begin closing in FY 1991.

Provided that our basing structure is consolidating, is it still necessary to proceed with the relocation of the Yongsan Headquarters from Seoul? What is the status of this issue?

Answer: The relocation of U.S. military facilities from Seoul is an initiative of the Republic of Korea Government (ROKG). From an operational point of view, U.S. Forces in Korea can adequately perform their mission with our present facilities, including those in Seoul. From a domestic political view, a long-term presence of U.S. Forces, as foreigners in the ROK capital city, has its obvious liabilities. Therefore, the U.S. position from the beginning of the discussions and negotiations has been that we agree in principle to the ROKG initiative to relocate from Seoul, provided that certain preconditions are met. One of these is that the move must be at no cost to the U.S. Government. We built our present facilities at considerable expense and we will not incur the expense of building replacement facilities at a new location. Basically, the U.S. stance has been that if the ROKG considers the relocation of U.S. military facilities to be necessary and/or desirable, the ROKG must bear all costs.

Negotiations between U.S. Forces, Korea (USFK) and the ROK Ministry of National Defense are ongoing in an effort to complete a comprehensive Memorandum of Agreement that would be the foundation for all relocation planning and execution.

Question: General Menetrey, what are the total costs involved in consolidating U.S. aviation personnel at Osan and Kunsan? Are these costs reflected in the FY 1991 budget?

Answer: The FY 91 President's Budget (PB) includes the following requests for force structure consolication in Korea:

Suwon	$8,052,000
Taegu	7,059,000
Kwangju	3,525,000

The FY 91 PB request for Kwangju does not reflect consolidation costs. The revised figure for Kwangju is $3,303,000.

Question: General Menetrey, from an operational standpoint, would it not be better to consolidate U.S. Forces at Taegu, much farther from the Demilitarized Zone?

Answer: [Deleted]

SOUTH KOREAN FINANCIAL SUPPORT FOR US FORCES

Question: General Menetrey, Suwon Air Base, at which A-10 attack aircraft are based, is your command's only dedicated close air support base. Is it the Department's intent to locate new close air support aircraft within Korea, or will these assets now have to come from U.S. Pacific Air Forces elsewhere in the Pacific?

Answer: [Deleted]

Question: General Menetrey, in the past, the Japanese have been willing only to fund quality-of-life projects for U.S. Forces stationed in that country. South Korea, on the other hand, only would fund construction projects related directly to a warfighting requirement. During the past year, Japan has shown a willingness to be more flexible and fund construction projects for warfighting projects, as well as operation and maintenance (O&M)-type costs related to local labor and base operations. Is there any evidence that the South Korean's are willing to show this same flexibility and fund either quality-of-life projects for our soldiers, or fund additional O&M costs? If so, how much of an increase in financial support are we likely to see from the Republic of Korea?

Answer: Earlier this year, the U.S. presented the Republic of Korea (ROK) Ministry of National Defense (MND) with the U.S. cost sharing request for 1991-93. This request calls for significant increases in funding and the addition of new cost sharing categories to address labor costs for Korean National employed by U.S. Forces and construction of quality of life type facilities. We have not yet received a formal ROK Government response to our request; however, our preliminary discussions with MND officials indicate that they are favorably disposed to increasing funding levels and expanding the scope of cost sharing to accommodate labor costs and additional types of construction. However, it is too early to speculate on the size of the funding increase or the details of the expanded scope of support. Discussions with Korean officials concerning the 1991-93 request are underway within the framework of the U.S.-ROK Security Consultative Meeting (SCM) process. We expect to have a response from the ROK Government on our request by midyear.

Question: General Menetrey, could you provide a status report on the Korean Augmentation to the U.S. Army or (KATUSA) program? We have heard reports that assignments with the U.S. versus Korean Armed Forces have become less desirable from a Korean perspective.

Answer: The KATUSA program, with its 5,663-man authorization, continues to be a critical component of Eighth United States Army (EUSA) readiness in terms of interoperability, manpower and cost savings. EUSA's continuing efforts to improve KATUSA training and utilization, in coordination with Republic of Korea Army (ROKA) support group, have fine-tuned the program and will ensure its continued viability. The KATUSA Executive Seminar (colonel-level) is a vehicle by which program improvements are pursued. As a result of an initiative of the seminar, the current KATUSA manning document was developed, realigning KATUSA specialties to more combat and technical positions. The manning document is updated annually to provide the optimum augmentation force structure, thus ensuring improved utilization of KATUSA soldiers.

The KATUSA program offers a unique opportunity for Korean college students to work and live with American soldiers while serving their mandatory national service. This opportunity enables them to improve their English language skills (very marketable in the Korean job market) and maintain some degree of proficiency in their college studies, which is normally not the case in the ROK Forces. For these reasons, the KATUSA program has always attracted numerous college student volunteers, resulting in a highly competitive selection process. The projection for CY 90 is one KATUSA selected for every eight qualified volunteers. This suggests that from a Korean perspective, the KATUSA program is still a very desirable option over any program in the ROK Forces, despite the surging tide of nationalism.

Question: General Menetrey, how is the presence of U.S. troops perceived by the coalition government and opposition parties in Korea? Do all parties support our presence?

Answer: The presence of U.S. troops in Korea is perceived positively by the political parties for its contribution to deterrence and defense. During the Secretary of Defense's visit here in February of this year, an opposition assemblyman said he was glad to hear that any withdrawal of U.S. Forces would be gradual and partial. Also, in the National Assembly on 2 March 1990, an opposition lawmaker expressed concern over possible U.S. troop withdrawals by asking Minister of National Defense Lee Sang Hoon how such a decision is possible if the Republic of Korea (ROK) is at a clear military disadvantage. The individual parties which joined to form the coalition government are all on record in their firm support of the U.S. military presence. During the September 1989 visit of Vice President Quayle, the then four party leaders once again expressed their opposition to withdrawals of U.S. Forces.

Question: General Menetrey, what was the Korean reaction to the amendment offered by some of my subcommittee colleagues last September to reduce troop strength on the Peninsula?

Answer: The 6 September 89 issue of the independent Tonga Ilbo pointed out that most conservatives in Korea consider the withdrawal of U.S. Forces undesirable. The paper observed that if U.S. troops were withdrawn, there would be an increase in military power on the Peninsula, both halves of Korea would likely develop nuclear weapons, and there would be political insecurity in the South and a tendency toward more adventurism in the North. The 18 September 89 issue of the same paper, reporting on the National Assembly Session, stated that the Ministry of National Defense (MND) estimated that the ROK would have to spend about 5.2 billion dollars to maintain the same defense level if U.S. Forces were to withdraw. The 21 September 89 issue of the conservative Choson Ilbo reported that at a meeting with Vice President Quayle, the four party leaders said that they opposed USFK withdrawal. The then Chairman of the ruling party Pak Chun Kyu said, "small scale reductions of U.S. Forces, Korea (USFK) may be possible someday, but immediate withdrawal will be a shock."

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Question: General Menetrey, the press has carried fewer stories on anti-American rioting by Korean students. Has the level of protest died down or is the media simply reporting it less?

Answer: The Korean press has carried fewer such stories partly because the level of protest has died down, but also because the press and the public are sick and tired of radicals who embrace an ideology which is being abandoned around the world and who urge the overthrow of a democratically elected government in Korea.

Question: General Menetrey, What is the reaction of each of the major political parties to the currently proposed 5,000-person troop cut? What would be each party's reaction to further reductions, as long as they were gradual and accomplished in full consultation with the ROK Government?

Answer: The general reaction is one of understanding coupled with concern. The parties would like to use any potential troop cuts as a quid pro quo in negotiations with the North. They have some doubt of our assurances concerning future troop levels and would prefer to avoid any further U.S. Troop reductions until such a time as the North significantly changes its posture and intentions.

In the wake of Secretary Cheney's February 90 visit a working-level panel on Korea-U.S. security ties was set up at the suggestion of the ROK Government (ROKG). The first meeting in February 1990 reaffirmed that any measures to readjust military cooperation between the two countries would be taken gradually so as not to damage combined military power. In the National Assembly on 2 March, an opposition representative expressed concern over possible U.S. Troop withdrawals by asking Minister of National Defense Lee Sang Hoon how such a decision is possible if the ROK is at a clear military disadvantage. Also in March at a National Assembly hearing on U.S. Forces, an opposition party assemblyman member cautioned that the U.S. might not stop short of a complete withdrawal and asked that the ROKG begin planning now for the possibility of a complete U.S. withdrawal.

At a meeting between Secretary Cheney and Korean politicians during his recent visit here, democratic liberal party representatives emphasized that any withdrawal of supporting forces should be gradual and based on close consultations.

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Question: General Menetrey, there were western reports earlier this month that North Korea was building a nuclear power station and that the country was seeking to develop nuclear weapons. Are you aware of any intention on the part of North Korea to develop nuclear weapons or acquire them from a third country?

Answer: [Deleted]

Question: General Menetrey, if so, what kind of nuclear capability do you anticipate in your contingency planning?

Answer: [Deleted]

Question: General Menetrey, are U.S. and South Korean Forces equipped to handle a nuclear, chemical or biological war threat?

Answer: [Deleted]

QUESTIONS SUBMITTED TO GENERAL MENETREY BY SENATOR BYRD

Question: General Menetrey, throughout the 1980's, the Defense Department has justified the maintenance of U.S. Forces in the Western Pacific by citing a major Soviet military threat to sea lanes and U.S. allies in the region, such as Japan and the Republic of Korea. If events in Eastern Europe and the Soviet Union result in future Soviet actions that lower the level of Soviet military threats in the Western Pacific, what changes can the United States make in its force structure in this region to reflect such a new situation?

Answer: I will defer to the Commander-in-Chief Pacific Command for comments concerning the implications of any changes in the level of Soviet military threats to the region. Concerning the Korean Peninsula, our forces are in the Republic of Korea (ROK) to deter, and, if necessary, defeat an attack on the ROK from North Korea. We have not seen any sign of changes in the North analogous to those in the USSR and Eastern Europe, nor any indication that the North is prepared to reduce its military strength or to renounce the use of force as a means of bringing the entire Peninsula under its control.

QUESTIONS SUBMITTED TO GENERAL MENETREY BY SENATOR DECONCINI

Question: General Menetrey, in your testimony on page 10, you speak of the AH-64 Apache helicopter conversion program and your request for $1.5 million for an Apache simulator facility. Is it your intention, or the intention of the Army, to station Apaches in the Republic of Korea? If so, how many Apaches is the Army considering for Korea?

Answer: [Deleted]

Question: Also in your statement, you speak of the people's Republic of China and North Korea growing closer in recent years. If this is indeed the case, why does the United States want to continue to do business with the PRC? In light of the events in Eastern Europe and the Soviet Union, is the idea of playing the "China Card" a reality in today's environment?

Answer: Relations between the People's Republic of China (PRC) and North Korea have apparently grown closer as each resists the changes sweeping the rest of the communist world. It is probable that the aging leadership of the two countries, increasingly isolated from, and out of step with, the rest of the world, feel a certain kinship. However, the present leadership will not survive forever. As the President has stressed, the U.S. has important geostrategic reasons for remaining engaged with China. While relations are strained as a result of the tragic events in June 1989, U.S. long-term interests would appear to be best served through the maintenance of contact and dialogue with the PRC.

If the term "China Card" is meant to imply the use of our relationship with the PRC as a counter to the power of the Soviet Union, which is a real world application of balance of power politics, it would appear that the concept of the "China Card" is as applicable today as it has been in the past. In other words, the U.S., as a status quo power, can be expected to continue to seek as a national security objective the prevention of the domination of the Eurasian landmass by a power or powers hostile to U.S. interests. To the extent that our relationship with the PRC furthers the attainment of that objective, we should maintain that relationship.

Question: General Menetrey, you state that the U.S. Forces in Korea provide various capabilities and logistics that the Republic of Korea cannot replicate. As the Korean economy continues to grow, making Korea one of the "Four Tigers" of the Pacific, when will Korea be able to replicate these capabilities? What steps are we taking to assist the Koreans in this area and what steps are the Koreans taking in the area of "burdensharing?"

Answer: U.S. Forces in Korea provide various capabilities and logistics support that the Republic of Korea (ROK) has not yet acquired. As its economy grows, and more money is devoted to force improvements, the ROK will be able to purchase additional war reserve munitions and some of the major systems it requires such as close air support aircraft, airborne command and control aircraft, reconnaissance aircraft, electronic countermeasure aircraft, integrated early warning systems, and satellite sensors/monitors/photo-imaging systems. Was reserve munitions and these extremely expensive systems are procured through a series of five-year Force Improvement Program (FIP). Traditionally, the ROK commits a third of its defense budget to the FIP and has funded the 1990-95 program at $24.3 billion. The recent decision by the ROK to invest nearly $4 billion to acquire the F/A-18 aircraft is a product of the FIP.

To assist the ROK we identify specific shortfalls, provide cost estimates, identify U.S. producers, and provide data on a variety of subjects, such as equipment capabilities. In the logistics area, the Joint U.S. Military Assistance Group - Korea (JUSMAG-K) provides valuable expertise through representatives at each of the ROK service headquarters and depots.

Annual ROK cost sharing support both direct and indirect, is valued by the ROKG at approximately $2 billion. Of this amount, approximately $1.9 billion is in the form of indirect support, such as the $1.2 billion in rent-free, ROKG owned land provided for the use of U.S. Forces. In 1990, the ROK provided an additional $12 million for the maintenance ot U.S. aircraft and $18 million for combined ROK/US support of war reserve stocks and theater communications enhancements. Also in 1990, the ROK committed $50 million for Combined Defense Improvement Projects, which had already been funded by the ROK at $40 million per year through 1991. At present, a comprehensive cost sharing program for 1991-93, calling for increased ROK funding and an expanded scope of direct ROK support of the U.S. is under discussion. The results of these consultations are exp0ected later this year and will likely result in a further expansion of cost sharing in terms of funding and scope of support.

Question: General Menetrey, the presence of U.S. Forces in Korea, specifically U.S. facilities in downtown Seoul (including the golf course), are a regular sore point for those Koreans who agitate against the U.S. presence. Are there any steps being taken to reduce the physical presence of U.S. troops and facilities, without an actual reduction in U.S. troops?

Answer: At the request of the ROK Government, we are engaged in negotiations to relocate U.S. military facilities from Seoul. The practical effect of such a relocation will be, among other things, to lower the profile of the U.S. military in the National Capital of Korea. Our motivation for such a relocation, however, is based on our calculation that the continued presence of U.S. Forces in Korea, which is in the long term interests of Korea and other states in the region as well as the U.S., is best served by moving to a less congested area out of the ROK Capital. While the continued maintenance of U.S. facilities in Seoul has been criticized from time to time by some in the ROK, there is currently no concerted media attack on them. While radical students have called for the removal of U.S. facilities from Seoul, indeed from the entire Peninsula, the publicity surrounding expectations of relocation in the media appears to have defused this dissident issue for the present.

Question: General Menetrey, is there any indication that the events of Eastern Europe and Nicaragua will have any impact on the regime in North Korea? Have our intelligence organizations been able to detect any softening in the North Korean hardline, if not in the top levels of the government, then in the lower ranks?

Answer: Pyongyang is certainly aware of developments in Europe and Nicaragua, but has chosen to resist any change. As long as Kim Il-Sung is alive, Pyongyang will not significantly repudiate any of Kim's Juche tenets, which would be political heresy. For the foreseeable future, North Korea will remain a steadfast adherent to traditional communist principles.

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QUESTIONS SUBMITTED TO GENERAL MENETREY BY SENATOR BUMPERS

Question: General Menetrey, in your statement you make much of North Korea's military prowess. On P. 3, for example, you state that "the military balance on the Peninsula.... continues to favor North Korea," and on the next page that the North Korean army has "numerical advantages over the ROK in most categories of combat power." If this is true, then why, with twice as many people and an economy eight times as large, has South Korea allowed this disparity to continue for so many years? I know they're modernizing, at a slow pace, but why aren't they modernizing a lot faster than they are? Is the threat not as bad as you are implying or are the South Koreans getting a free ride from Uncle Sam?

Answer: The South Korean economy has not always been eight times as large as that of North Korea and unlike that of the North, the South's economy is not primarily geared to military production, but rather to meeting consumer demands, as the U.S. advocated after the Korean War. Also, the military force buildup which has given the North such a commanding lead, was begun in the early 1960s, but was largely undetected by the ROK or the U.S. It was nearly twelve years before the South began a comparable program. In spite of the North's head start, by 1978 South Korea's annual defense expenditure had finally surpassed that of the North. When compared to the North, the South spends a larger portion of its defense budget for operations and maintenance, a necessary expenditure to maintain the combat readiness of its forces. Although it is difficult to obtain accurate budget and economic data on North Korea, it is projected that cumulative military investments will not favor the South until the middle of this decade.

The Republic of Korea (ROK) has increased defense spending in real terms by more than 350 percent since 1971, far surpassing the U.S. or any of our other allies. Over the last decade it has allocated an average of 5.2 percent of its ever increasing gross national product to defense and has increased its defense budget an average of seven percent annually. Within the defense budget, the ROK has devoted its resources principally to maintaining the combat readiness of its forces and force improvement/modernization. About one-third of the budget has traditionally been allocated to support a-continuing series of five-year force improvement programs (FIP). The ROK devotes these funds to the procurement of new equipment and other force modernization projects necessary to achieve their goal of military self-sufficiency. Funding for the current FIP (1990-95) is $24.3 billion, a towfold increase over the previous five-year program. The ROK decision to purchase the F/A-18 aircraft is an example of the FIP at work. In 1990 alone, the ROK will purchase nearly $1.5 billion in military equipment and supplies from the U.S. The ROK is committed to defense and to achieving military self-sufficiency, and I am confident that it will continue to allocate the resources necessary to maintain productive force improvement programs.

We have not exaggerated the threat -- North Korea remains a formidable and unpredictable adversary -- nor are the Koreans getting or seeking a free ride from the U.S. The U.S. and the ROK have mutual national interests in deterring North Korea and maintaining stability on the Peninsula and in Northeast Asia. Consequently, each nation should commit the resources which its feels are necessary to protect its interests. The ROK's commitment to defense remains strong and it will continue to modernize its armed forces at a rate consistent with its goals of military self-sufficiency and the balanced development of the nation. Similarly, the U.S. should commit whatever resources it deems appropriate to serve its interests. The U.S.-ROK security relationship is a partnership, with no free rides for either nation.

Question: General Menetrey, you were quoted last August as saying that if current trends continue, "there should be stability on the [Korean] Peninsula without the United States being part of the equation in the mid-1990's." As long as we maintain our security guarantees to the South, why can't we remove our forces more quickly?

Answer: The statement cited above was not a complete rendering of my views. President Bush said it best in his address to the Republic of Korea (ROK) National Assembly in February 1989 when he stated that U.S. Forces are in Korea at the request of the Republic of Korea to deter aggression from the North and that our presence contributes to the peace and stability of Northeast Asia. The President further said that U.S. Forces will remain in the Republic of Korea as long as they are needed, and as long as we believe it is in the interest of peace to keep them there.

Question: General Menetrey, in the event of a North Korean invasion, how long would it take South Korea and the U.S. to establish air superiority over the Korean Peninsula?

Answer: [Deleted]

Question: General Menetrey, How many MiG-29's does North Korea have? When was the last shipment? Do you expect more?

Answer:

[Deleted]

Question: General Menetrey, while South Korean spending on defense has increased over the years, as a share of GNP it has declined since the early 1980s, from a high of 6.1% down to 4.75% in 1990. If the threat from the North is so bad, why haven's they at least a constant 6% share devoted to defense?

Answer: [Deleted]

Question: General Menetrey, what are the aircraft assets that the U.S. Air Force has in South Korea? Are more U.S. F-16's being put into South Korea in conjunction with the reduction of 2,000 U.S. Air Force personnel (there were stories in the South Korean press to this effect)?

Answer: [Deleted]

Note 1. One squadron at Osan Air Base and two squadrons at Kunsan Air Base. 24 primary authorized aircraft per squadron.

[Deleted]

Note 3. Squadron at Suwon Air Base. This squadron will relocate to Osan Air Base in 4th quarter, FY 90.

[Deleted]

Question: General Menetrey, given the North Korean threat, wouldn't the MLRS be a logical weapon for the South Koreans to have in their arsenal? Why don't they want to buy MLRS?

Answer: The Multiple Launch Rocket System (MLRS) would be a logical weapon for South Korea to have in its arsenal. However, to derive maximum benefit from the capabilities of MLRS, it must be linked to effective target acquisition systems through a fully automated tactical fire control system. The South Koreans have neither, and acquisition of U.S. MLRS without these supporting systems would be premature. At present, the continued acquisition of self-propelled 155-MM artillery systems, via an in-country co-production program, and the commercial procurement of artillery locating radar systems enjoy highest priority in the overall ROK artillery modernization program.

To the best of our knowledge, the South Koreans have never indicated that they don't want to buy the MLRS. South Korean officials continue to show interest in acquiring MLRS, provided acquisition is on a commercial basis that includes co-production and other offset considerations. The South Korean Army already has an indigenously designed and produced 130-MM Multiple Rocket Launcher System (MRLS). The ROK MRLS is not a precision weapon and is completely different from the U.S./NATO MLRS.

Question: General Menetrey, is the budget request for $83 million in military construction in Korea still valid in view of our intention to start withdrawing troops from that country? What are your 5 highest priority MILCON projects in Korea?

Answer: The budget request remains valid. The projects reflected in the request are the minimum required to sustain our high state of readiness and support the stationing of U.S. Forces in Korea. All of the U.S. Forces', Korea (USFK) FY 91 military construction projects are at locations we expect to occupy for the foreseeable future, in spite of force reductions or realignments. The 5 highest priority MILCON projects are:

PRIORITY	PROJECT TITLE	LOCATION	PA($MIL)
1	Flight Simulator	K-16 Airfield	$1.5
2	Squadron OPS/Maint Fac	Osan AB	1.7
3	Squadron Operations	Kunsan AB	6.0
4	Munitions Storage	Casey/Hovey/Howze	11.0
5	AC Fuel System Repair Dock	Kunsan AB	3.3

Question: General Menetrey, what are the ROK Forces' greatest shortfalls vis-a-vis North Korean Forces? Why has South Korea allowed those imbalances to persist for so many years and when can we expect ROK Forces to reach parity with the North?

Answer: [Deleted]

Question: General Menetrey, how many U.S. military dependents are in South Korea, by service? How many U.S. civilian employees of our armed services and dependents, by service, are stationed in South Korea?

Answer: Total U.S. military dependents in South Korea by service:

	Command Sponsored	Noncommand Sponsored	Total
Army	4,431	5,082	9,513
Air Force	1,274	2,688	3,962
Navy	374	22	396
Marine	98	0	98
Total:	6,177	7,792	13,969

Total civilian dependent population is 5,019. Records do not indicate with which service these dependents are associated.

	U.S. Civilian Employees
Army	2,012
Air Force	697
Navy	43
Marine	0
Other*	1,440
Total:	4,192

*Other: USFK invited contractors, technical representatives, and Korea Area Exchange (KOAX) employees.

Question: General Menetrey, we all agree that Kim Il-Sung is probably not the most rational leader in the world. What is your assessment of the "rationality" of North Korea's military leaders?

Answer: [Deleted]

Question: General Menetrey, there are stories in the South Korean media that the North Korean military is less than enamored with Kim Il-Sung's son, Kim Jong-Il, who is being groomed to take his father's place. Do you believe those press accounts? What do you think we could look for in North Korea, when and if Kim Jong-Il takes power?

Answer: [Deleted]

QUESTIONS SUBMITTED TO GENERAL MENETREY BY SENATOR D'AMATO

Question: General Menetrey, the Washington Times reported on February 21, 1990 that U.S. and South Korean Forces had discovered what was suspected to be another North Korean "invasion tunnel" in the Demilitarized Zone last December. If true, could you provide us with the details of this discovery?

Answer: The tunnel was discovered on one of the over 20 suspected tunnel axes the combined U.S.-ROK tunnel detection teams have been monitoring since the discovery of the third tunnel in 1978. This site has always been of major concern, having been searched both in 1979 and 1984 without result. The rugged terrain has restricted our ability to drill close enough to the border to intersect their tunnel. In fact, this discovery occurred only 20 meters from the South end of the tunnel. The ROK Army began a large drilling effort in the area in the spring of 1989. The U.S. provided technical support and operated one search system in this area in addition to a similar ROK produced system. The specific incident that sparked interest in this particular site was an unusual noise reported by the ROK Army in August of 1989. After constructing new access roads on the side of the mountain and drilling several deep holes, the ROK search system identified an air filled void in a granite rock formation during the last week of November 1989. This was verified by the U.S. search system and operations began to drill into the void on 18 December 1989. The ROK Army drilling team successfully penetrated the void on 24 December 1989. The U.S. component lowered a small video camera in the 145 meter bore hole and obtained video tapes of the tunnel that displayed man made artifacts. Based upon these video tapes, the ROK Army began to construct a 330 meter long, 3 meter diameter access tunnel. During this operation, the U.S. tunnel neutralization team provided continuous monitoring of the tunnel to prevent North Korean discovery of our tunneling efforts.

The North Korean tunnel was entered on 3 March 1990 after a 75-day operation. Many artifacts were discovered, including railroad ties, pipe gaskets, electrical wires and bulbs, and other man-made items. Expert evaluation of the tunnel shows that it was constructed from the North to the South. We have now followed the tunnel to the military demarcation line and erected a barricade to preclude its use by the North. This discovery is ample evidence that the North has maintained the capability to cross the military demarcation line using covert tunnels. We continue to search other areas of the demilitarized zone.

Question: General Menetrey, when will the 2nd Infantry Division swap its M-60A3's and M-113's for M-1's and Bradley fighting vehicles?

Answer: [Deleted]

SUBCOMMITTEE RECESS

Senator **Inouye**. This subcommittee will stand in recess until Tuesday, March 6, at which time we will have a closed session to receive testimony from the Commanders in Chief of the Atlantic, Central, and Transportation Commands.

[Whereupon, at 10:41 a.m., Thursday, March 1, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1991

TUESDAY, MARCH 6, 1990

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:02 a.m., in room SD–124, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, Stevens, Kasten, D'Amato, and Cochran.

DEPARTMENT OF DEFENSE

U.S. ATLANTIC COMMAND

STATEMENT OF ADM. FRANK B. KELSO II, COMMANDER IN CHIEF, U.S. ATLANTIC COMMAND

OPENING REMARKS OF SENATOR INOUYE

Senator INOUYE. This morning the Subcommittee on Defense Appropriations will receive testimony from three witnesses: Adm. Frank Kelso II, Commander in Chief of the Atlantic Command; Gen. H. Norman Schwarzkopf, Commander in Chief of the U.S. Central Command; and Gen. Hansford T. Johnson, Commander in Chief of the U.S. Transportation Command.

Each will address both the budgetary and policy implications of the projects fiscal year 1991 defense appropriations. For the men and women who defend our Nation's interests around the globe, the lessening of East-West tensions in Europe does not necessarily provide relief from the arduous routine. Vigilance is still the watchword of the day, as regional powers, small insurgencies, religious fundamentalists, radical nationalists, and terrorist vie for primacy in an unstable Third World arena.

The soldiers, sailors, and airmen assigned to the U.S. Atlantic and Central Commands operate every day in this cauldron of violence, giving support, promoting stability, and waging war, if necessary, to preserve America's far-flung interests.

The political evolution of Europe does not change the unalterable facts of geography. U.S. planes and warships must still traverse two great oceans to reach the land masses of Asia, Africa, and South America, where an American presence continues to play a central and guiding role. The resupply of our forward forces in wartime remains a daunting task requiring precision, careful planning, and readiness.

The U.S. Transportation Command exists to manage these requirements and does so through the coordination of essential airlift, sealift, and prepositioning vessels in support of CINC commanders and their forces overseas.

Since its inception 2½ years ago, the U.S. Transportation Command has tried to harmonize the way in which U.S. transportation assets are employed in an emergency by directing their efficient and timely deployment.

It is the conclusion of many foreign policy experts that the security threats of the 1990's are unlikely to be as easily discernible or contained as they have been over the past two generations. Hostilities directed toward the United States can no longer be assumed to have as their home address either Moscow or Beijing. Instead, regional tensions will be fueled by local grievances, historical claims to land, and the need to acquire scarce resources.

In an era of decreasing domestic defense budgets, we can expect that sophisticated weapons, including chemical, biological, and nuclear weaponry, will flow to the Third World as easily from the factories of our friends and allies as from the arsenals of our foes. For these reasons alone, we must maintain a strong, well-tuned defense posture.

FOCUS OF HEARING

Today we will turn our attention to the problems of the Middle East, the difficulty of policing the Atlantic, and the complexities of war mobilization transport. Our review will encompass the countries of the Persian Gulf and the Levant as well as the maritime sea lanes stretching from Western Europe to the Caribbean, down to the Cape of Good Hope. In all, it is a vast region, but one that is of permanent and vital importance to American commercial and strategic security.

The race to restructure the world order is on. We must remain engaged in the international system of force for peace and democracy or fade away, as have other great powers before us. The challenges faced by our country today are as great as at any time in our history. From our military they demand alertness, readiness, and preparedness. From our citizens, they demand sacrifice, commitment, and the maintenance of a global vision.

I am confident these objectives can be realized.

Before receiving our testimony this morning, I would like to congratulate Admiral Kelso on the pending appointment as the Navy's new Chief of Naval Operations. It is an honor for which he and his family should be justly proud. So, Admiral Kelso, on behalf of the committee I would like to extend to you our best wishes for smooth sailing and a productive tenure as CNO. Good luck to you, sir.

Admiral KELSO. Thank you, Mr. Chairman.

Senator INOUYE. Admiral, we have received your prepared statement and it will be made a part of the record and you may proceed as you wish, sir. [Deleted.]

STATEMENT SUMMARY

Admiral KELSO. Mr. Chairman, thank you very much for those kind remarks. It is a great honor and privilege to appear before your subcommittee this morning. With your permission, sir, if the statement will be in the record, I would like to make a short statement and talk about two or three issues. Then I will be ready to respond to any of your questions directly.

PERSONNEL

The first issue I would like to talk about is people. I believe one of the most important areas in the declining military spending will be maintaining the quality people that we have in our armed services today. I think we will need your help over the coming days and years to make it clear to our people that their job continues to be important to the American people and to the maintenance of peace in our world.

I have always thought that the most important ingredient to retain our people in the military is their perception of what the American people view their job to be, so we will need your help.

I think they will measure your support in three ways—how you express it both verbally and in your actions; whether we are willing to maintain a sufficient quality force structure to meet our forward-deployed commitments and permit the service men and women a reasonable home life with their families and friends; and, of course, they will measure whether we are willing to provide sufficient pay and benefits and allowances in comparison with their civilian friends.

I thank this committee for the support you have given us through the years. We have a quality force today, and you deserve much credit for that. It will be a challenge to retain such quality in the years ahead, and I ask you to keep this at the forefront of your deliberations. We will continue to need quality men and women in our forces, ready to meet U.S. interests in many areas of the world, as you have so eloquently stated in your opening statement.

DEPLOYMENTS AND COMMITMENTS

Next, I would like to talk about our deployments and our commitments. Many analysts are reporting that the Soviet threat is greatly diminished; and I certainly would agree there is less risk of confrontation. However, we should not forget that the threat equation has two components—the will to use force plus capable military force. Certainly we can say the Soviet will to use it is diminished, as events in Eastern Europe have shown. But from a maritime perspective their forces are more capable today than when Mr. Gorbachev came into power. They continue to modernize naval air, surface, and submarine forces and now are testing a fixed-wing aircraft carrier.

There are needs for military forces other than conflict with the Soviets. Even if we discount the Soviet threat, there continue to be substantial requirements for deployable military forces. Recent history in the Mediterranean, Persian Gulf, Panama, and the western Pacific have dictated the need for ready, quality forces. I do not see any substantial lessening of tensions in much of our world; and it will continue to be in this Nation's interest to be able to respond with military presence or force to whatever crisis calls.

Most pressing among these today is the major counternarcotics effort you directed last year. We have expanded every aspect of our antidrug operation and plan to do more. As a result of force structure reductions imposed in 1989, 1990, and the projected 1991 budgets, and the use of increased forces in drug interdiction operations, we have already cut back forward-deployed maritime commitments in some areas. We have done so in recognition of a reduced threat and to keep personnel tempo at no greater than 50 percent time away from home. A reasonable deployment time is of utmost importance to the personnel retention equation.

THREAT UNDIMINISHED

The last issue I would address is that from time to time I hear the argument that as the threat diminishes we will be able to reduce readiness, since the reduced threat means we will have longer to prepare for the use of military forces. I do not share this view, as most of my forces regularly deploy; and the areas where they operate place them in ~~harm~~'s way. Third World military forces are in possession of very capable military hardware, and our forces must be trained and ready to meet the possible threat.

We owe it to our troops to ensure that they have the best technology and training that we can produce.

In conclusion sir, I appreciate the difficult job this committee and the Congress face in ensuring this Nation maintains adequate defenses while at the same time meeting the desires and needs of all of the American people. Thank you again for your continued support of those of us in uniform. I am personally honored to appear here this morning.

[The statement follows:]

Statement of Adm. Frank B. Kelso II

INTRODUCTION

Mr. Chairman and members of the Committee, I appreciate this opportunity to discuss the Atlantic Command and the important part it plays in our national security. I hope to provide you an appreciation of our area of responsibility, explain our strategy with present and programmed military forces and discuss our capabilities as well as areas of concern in the Atlantic Command.

As I noted during testimony last year, we are currently witnessing a period of political change. I fully acknowledge there are difficult, unprecedented decisions ahead. These decisions will be driven by a dynamic threat, competing national priorities, a constrained Defense Budget and negotiated force reductions. Tensions between East and West are lessening and progress is being made toward resolving some of the issues which have historically been the source of friction between the United States and the Soviet Union. The political climate is encouraging, and the world should welcome the prospect of reduced arms, reduced tensions, and reduced chance of war. However, the events of recent weeks demonstrate that change, once underway, is unpredictable and sometimes violent. Therefore, we must approach our military command responsibilities on the basis of potential adversaries' current military capability as we carefully plan to respond to potential reductions in their capability.

In evaluating the potential threat from the Soviet Union, two factors must be considered: the capability of the Soviet military forces; and the will of the Soviet government to employ those forces. Capability takes many years to change substantively; while as the events in Tiananmen Square have again shown us, the will to use force can change literally overnight.

So our analysis of the East-West relationship must continue to take good measure of existing military capability; in particular, that possessed by Europe's dominant land power, the Soviet Union. We know the Soviets continue to build more advanced nuclear and conventional systems. Since Mr. Gorbachev assumed power in 1985 they have made improvements to every leg of their strategic arsenal from bombers to submarines. Naval modernization continues apace. The Soviet second-generation aircraft carrier program is progressing rapidly. The first two ships of this class, the "Tbilisi" and "Riga" are clearly bigger and better than the Kiev class. A third generation carrier, also under construction, will be about the size of the Forrestal class of U.S. carriers. State of the art submarine construction shows no sign of diminishment. How this continued expansion of Soviet naval capability fits into the newly embraced Soviet defensive strategy is an open question.

Most cuts in Soviet military hardware have been and will probably continue to be in outmoded, inefficient equipment. With respect to the Soviet Navy in particular, ongoing production of modern platforms, combined with the retirement of outdated systems could, in fact, translate directly into a more impressive Soviet wartime capability than we face today.

In addition to the reality of Soviet military capability, regional rivalries and instabilities; acts of terrorism and aggression; and international drug trafficking all present the United States with additional requirements for conventional forces capable of responding rapidly to taskings throughout the world. We must continue to maintain a cautious, intelligent approach to force reductions, ensuring the United States retains the strength to act as a stabilizing force in a rapidly changing international environment.

ATLANTIC COMMAND

The Atlantic Command is a unified command with Navy, Marine, Air Force, and Army forces apportioned to defend U.S. interests in the Atlantic area of responsibility. It is also a cornerstone of NATO's maritime strength, providing the majority of forces assigned to protect our capability to reinforce SACEUR in Europe. Geographically, the command encompasses the entire Atlantic Ocean, the Caribbean and Gulf of Mexico. In addition, it includes waters in the Pacific adjacent to Central and South America, an ocean area that covers over 45 million square miles of water and borders on more than 50 countries. The Atlantic sea lines of communication are a key link between the United States and the rest of the world. Along these routes pass many of the strategic raw materials, petroleum and finished products which are the foundation of world trade and essential to our own economy. It is over these same sea lanes that reinforcement and resupply shipping must flow in the event of conflict, of whatever intensity, in Europe, the Middle East or Africa.

In the event of confrontation, the Atlantic Command's responsibility is to support the land campaign by ensuring the safe and timely flow of personnel and equipment, nearly all of which must go by sea; and by the direct application of combat power in support of that land campaign. As the Conventional Forces Europe (CFE) process leads to reduced U.S. ground presence in Europe, the ability to protect reinforcement shipping from potential interdiction will become an even more significant element of deterrence. Should this ability be eroded, the credibility of Western conventional deterrence will be seriously degraded.

STRATEGY IN THE ATLANTIC

Recognizing the challenge we face in the Atlantic, both the U.S. and NATO long ago adopted a maritime strategy based upon the principles of forward defense and containment. Even in the current encouraging political environment, these principles must apply. The objective of a maritime forward defense is to deter war, to show NATO's resolve not to relinquish one inch of soil. This means NATO forces should be placed in the best position to respond in case of conflict, before the conflict begins. This strategy can only deter when it is practiced through exercises and the forces are readily seen as trained and available to permit its execution. Then, and only then, can it be a credible strategy. The intent of a maritime forward defense strategy can be interpreted as offensive or defensive depending on how one views it. But for more than forty years NATO has declared that the strategy is defensive, and the absence of a single aggressive act by NATO forces throughout the course of this period underscores the point.

Maritime forward defense may be applied to any situation from increasing tensions, to crises, to open hostilities. To have a forward defense neither dictates nor suggests that tensions, crises or hostilities are imminent or on the horizon. It does imply that if tension, crises or hostilities come, NATO is prepared to respond. Since the Soviet Union has maintained the only military force of sufficient size to threaten NATO since it was founded, NATO's military strategy has been designed to deter possible conflict and to maintain the integrity of NATO territory. We are unquestionably witnessing significant changes politically and militarily in the Soviet Union and in Eastern Europe but the outcome of these changes are far from clear and there is the potential for political instability for some time to come. Forward defense is still the most prudent military strategy because it provides the greatest flexibility to respond to the full range of new situations.

An essential element of this strategy, maritime forward defense, simply means that NATO, faced with the prospect of crises or war, will deploy naval forces forward to the area adjacent to NATO's Northern Flank in an effort to deter conflict. But, if conflict does arise, it will be in the best position to stop aggression and hold NATO territory. It would be most difficult to defend Norway and Iceland and to support SACEUR from any other position. Should NATO lose Iceland and Norway, both the Atlantic sea lanes and the Alliance Central Front would be at peril. NATO's maritime geographical advantage would be greatly reduced, and our essential reinforcement and resupply routes would be exposed to a war of attrition at sea, which would require far greater maritime forces than NATO nations currently envision procuring.

Is Maritime Forward Defense credible for the future? NATO's fundamental strategy remains defensive, and the maritime component is defensive as well. NATO and SACLANT strategy remain as valid now as when formulated over twenty years ago. Collective security works. The major objective of the Allied Command Atlantic is to ensure the Atlantic Ocean remains a bond and not a barrier.

FORCES

It is important to address the forces available to support the strategy and to identify any operational deficiencies. I could list for you, as I did last year, those shortfalls which exist for a full blown East-West confrontation; but I doubt in these times that would be of much use or help to you as you deliberate the fiscal year 1991 budget. I believe it is clear that short of some external event which changes the political view, we will see declining defense budgets in the years ahead. I, therefore, believe I can help you best by describing for you where we in LANTCOM stand versus our current commitments. I believe it is fair to say that current forces have deterred war; and we can assume, in light of ongoing political and military developments, that if properly modernized, this level should continue to deter war.

First, let me speak of strategic forces: As we reduce conventional forces, strategic forces will remain or grow in their importance to deterrence. In LANTCOM, the TRIDENT force with the D-5 missile will take over the strategic load by the end of the century. This force is essential and should be fully funded to replace the POSEIDON and TRIDENT I forces as planned.

As for conventional forces, we have already made significant reductions in fiscal years 1989, 1990, and 1991 budgets. In LANTCOM we have reduced one carrier; are retiring 22 cruiser, destroyer, and frigate type ships early; have reduced the Maritime Patrol Force by 26 aircraft; and are retiring a battleship in fiscalyear 1991. When weighed against delivery of new ships and transfers to the Naval Reserve, the number of active ships in the Atlantic Fleet will decrease by 25 during the same period. This is a significant reduction in our military capability. Our deployed commitments are already being reduced because of this force reduction and to permit the anticipated expansion of our drug operations. We are committed to maintaining our PERSTEMPO of operating forces at no more than fifty percent time away from home and we have exceeded this level of operations already with some types of ships because of reductions. The choice from now on with further reductions is to reduce commitments or increase the time the American blue jacket spends at sea. The latter option invariably results in reduced retention of personnel and reduced force readiness.

We have historically required forward deployed forces for many reasons and situations. Many of these reasons and situations have little or nothing to do with East-West tensions. Much of the world is unstable politically and economically, and the United States military forces have been required frequently to provide stabilizing influences across the globe. This instability continues, and it seems logical that U.S. forces will continue to be forward deployed for some time to come, as they should be. In my opinion, we have already reduced our deployed levels to a minimum if we are to maintain the same political and military impact. We are also already at a level where the movement of forces to a trouble spot like the Persian Gulf will cause either a reduction in another area or more time away from home for the sailor; the excess surge capability is gone.

With these reductions in forces, the necessity to continue to modernize becomes increasingly important. New technological advances will be required to maintain our deterrent with smaller forces. In my opinion, this is exactly what the Soviets are doing.

COUNTERNARCOTICS

Within the last fiscal year CINCANT has assumed another significant mission—to conduct drug detection and monitoring operations throughout our area of responsibility. This mission is directed by a Flag Officer with his staff and headquarters (Joint Task Force Four) located in Key West, Florida. Reporting directly to USCINCLANT, he is in charge of all anti-drug surveillance operations and is responsible for coordination with other agencies and commands involved in surveillance and interdiction. More specifically, we have five basic tasks: providing all-source, tailored intelligence information to Law Enforcement Agencies on the aerial and maritime transit of illegal drugs; allocating/scheduling air and maritime assets for detection and monitoring; conducting counternarcotics detection and monitoring operations; coordinating the counternarcotics detection and monitoring operations of other services and federal agencies within the USCINCLANT area of responsibility; and integrating JTF-4's operations into the counternarcotics Command, Control, Communications and Intelligence (C^3I) network.

Major efforts thus far have included improving the quality and quantity of available intelligence, and improving and expanding communications and data connectivity among the services and agencies supporting JTF-4. We are working to ensure that appropriate and timely intelligence information is provided to appropriate civilian Law Enforcement Agencies.

Since startup on 27 February 1989, JTF-4 has quickly evolved from a small cadre staff to a 24 hour operation. We have significantly expanded DOD forces used in counternarcotics operations. We are prepared to commit further forces toward this effort as soon as coordination with our South American Allies is concluded. We are committed to greatly reducing the transit of illicit drugs through the Atlantic Command area.

PRIORITIES

The President's FY 1991 Defense Budget represents a careful balance among DOD requirements. Of these, I would like to share with you my top priorities for the Atlantic Command:

Personnel readiness.—My highest priority is for programs that support people—our most perishable asset. As evidenced by the recent events in Panama and the continuing prosecution of our counternarcotics efforts in the Caribbean, it is imperative that we maintain a mobile, flexible and ready force. As we assess the required numbers and critical skills needed to support our wartime commitments, one constant remains—the importance of attracting and retaining quality personnel The superb readiness of our forces today is in great measure a result of the remarkable dedication and morale of the young men and women in the armed forces. Our commitment in the last decade to increased pay and benefits for these dedicated young people is in no small measure responsible for their morale and their clear understanding that the American people support and admire their efforts. The problem we will face in the 1990's will be to retain these quality individuals. We ask your continuing support for adequate pay and the quality of life programs so necessary for retention.

We need, once again, to pay our people in uniform wages that are commensurate with what they can earn in the civilian sector. With the 3.6 percent pay raise approved for FY 1990, we still have an eleven percent comparability gap as a result of military pay raises that have been capped below the average private sector wage increases since 1982. We must strive to maintain a military compensation program that can compete with other employment alternatives. I ask for your support of the 3.5 percent FY 1991 pay raise submitted in the President's Budget.

As our military forces are reduced in size, compensation programs become even more important to shape that smaller force with high quality, technically competent personnel who have the critical skills needed to man the advanced systems of this decade and into the next century. Bonus programs have helped address the recruiting and retention problems experienced in many areas requiring special skills.

Material readiness.—The outstanding condition of our forces also reflects prior year commitment to fund spare parts, operational training, depot level maintenance, modernization and facilities maintenance. The funding for these operation and maintenance accounts often is the first to be impacted by reductions in defense spending. The full effect of less than adequate funding in these areas is not reflected immediately in unit readiness. It takes time for ships, aircraft squadrons and battalions to draw down on spare parts stock levels, and for personnel proficiency and equipment reliability to decline. We may be seeing the beginning of that decline because of the funding shortages of the past few years. The President's Budget attempts to preserve our readiness goals within the context of overall funding reductions. Even so, readiness in the Atlantic Command has leveled off and the positive trend of the past few years has begun to reverse.

ASW.—My warfighting priority is to maintain our antisubmarine warfare capability in the face of the rapidly improving quality of Soviet submarines. The Soviets are incorporating quieting technology in every new and overhauled submarine, and this has seriously reduced our detection capability. While we are still slightly ahead, the Soviet quieting trend indicates their best may soon equal ours. They continue to build high technology attack submarines at a rate nearly twice that projected for our SSN-21 attack class. Failure to maintain our submarine and antisubmarine technological superiority would place in jeopardy our ability to prevail in a war with the Soviets. The FY 1991 budget supports a balanced ASW program that includes the necessary investment in ASW research and development and keeps the SSN-21, P-7, ASW sensor improvements, Fixed Distributed System, DDG-51 and torpedo programs on track.

Sustainability.—We must continue to address specific sustainability shortfalls that would hinder our ability to conduct operations in a major war. The most serious concerns, all partially funded to meet required inventories, are: air-to-air missiles (AMRAAM); antiradiation missiles (HARM); torpedoes (MK-48 ADCAP; MK-50); sonobuoys; other preferred weapons (HARPOON; SM-2 MR/ER); replenishment spares; and POL.

Command, control, communications, surveillance, intelligence, and electronic warfare.—These capabilities are required to support every warfare area in times of crisis and hostilities.They are necessary for indications and warning, and must be adequately survivable to perform in an environment of intense electronic jamming and deception. Priority programs are: secure and antijam communications (SINCGARS; HAVE QUICK; JTIDS); surveillance upgrades (North Atlantic Defense System; IUSS; OTHZ-B; AWACS radar improvements); electronic Warfare (Air to Surface ECM upgrades/Combat DF/BGPHES); and strategic connectivity (MILSTAR; VLF/LF).

Security assistance.—The programs that make up security assistance to Caribbean nations provide us positive leverage an order of magnitude greater than their relatively small dollar investment. Our assistance enables nations to develop an indigenous security capability and strengthens ties to the U.S. through equipment and training. Additionally, these programs provide us with one of the few tools we have to enable cooperative nations to support us in the war on drugs.

The National Drug Control Strategy calls for the United States to reinforce the capabilities of the governments of these countries cooperating in the fight against illegal drugs to combat drug-producing organizations. The strategy goes on to say that "security assistance will help to enable such a government to protect itself from criminal drug enterprises and drug related insurgencies, and to enforce laws against drug producers and traffickers." Unfortunately, the impact of near zero security assistance allocations to the region since 1987 is starting to show its effect with the degradation of U.S. provided equipment to the region and a subsequent erosion in confidence, seriousness and U.S. credibility regarding our emphasis on a cooperative counternarcotics policy. Although we have developed short and long term security assistance plans and programs to assist these nations in the drug war, no funds to speak of have been appropriated, and I have little, if any recourse in the security assistance allocation process.

We need your support to restore security assistance programs which underpin Caribbean stability. Twenty million dollars annually would assist these nations in restoring our previously provided equipment, and provide the training necessary to maintain stability in the region.

CONCLUSION

In summary let me say that I understand the reasons behind the desire to reduce defense spending. We must keep in mind, however, that the Soviet Union will maintain a formidable military capability for the foreseeable future. The challenge in these dynamic times is to resist the temptation to move too quickly in reducing our defense posture. This is particularly true when the effects of prior year budgets have already reduced the Atlantic Fleet to the point where we are forced to cut back our peacetime deployment commitments. American military presence throughout the world has been successful in helping to maintain peace and support U.S. interests for almost half a century. As you make the hard decisions concerning defense reductions, I ask that you weigh carefully the impact so that you are not caught by surprise some years from now to find that we can no longer do what you have for so long assumed we can.

This completes my presentation and I am prepared to answer your questions.

CUBA

Senator **Inouye**. Thank you very much, Admiral.

Recently we were advised that the Soviet Union, as part of beefing up the Cuban air force, is sending the Cubans [deleted] Mig-29's.

Admiral **Kelso**. Yes, sir.

Senator **Inouye**. We have been advised that this may be in violation of the Kennedy-Khrushchev agreement in barring aircraft with offensive capabilities in Cuba. Would the introduction of these [deleted] MIG's have any impact on your security?

Admiral **Kelso**. Well, certainly they are capable airplanes and they could deploy and drop weapons, since Cuba is only 90 miles from the United States. I think [deleted] airplanes are not a threat to the security of the United States; but they certainly have an offensive capability, Senator.

Senator **Inouye**. So you are watching that?

Admiral **Kelso**. Yes, sir.

SOVIET NAVAL ACTIVITIES

Senator **Inouye**. Now, last year you indicated that the overall quality of our ships and aircraft would be superior to that of the Soviets, and you also said that out of area naval operations of the Soviets had declined but the Soviet navy was stronger in the Nordic waters than it was 3 years ago. Are you telling us that the Navy in that area has not been affected by the activities in Europe and the Warsaw Pact area?

Admiral **Kelso**. No; I believe there is a clear case that their naval forces have continued to improve. Over the period of time that we have looked at the Soviet army and tank production cutting back, they have continued to build more and better submarines at the same rate as in the past. They continue to build major surface ships at the same rate they have in the past. They have modernized their naval air arm, replacing older type airplanes with new airplanes. They are currently testing a fixed-wing carrier in the Black Sea.

They have three additional carriers under construction. So it looks like they have the capability to transition to a more potent naval air arm.

I would say that they are modernizing their force in every respect. I do not think it is growing in size so much because they are getting rid of a considerable amount of older hardware—submarines that are no longer useful, some surface ships that are no longer useful—and replacing them with more and better equipment. In particular, the submarine force is improving with modern units.

Senator INOUYE. Are these modernized ships and aircraft being introduced into your command area?

Admiral KELSO. Yes, sir, in the northern fleet. The carrier that I am talking about is currently in the Black Sea. It is not operational yet. It has tested three types of airplanes in its trials, but it has not gone operational yet. I would expect it to be deployed in the northern fleet, but they normally build them in the Black Sea.

Senator INOUYE. This is the result of observations, not historical trends, is it?

Admiral KELSO. No, sir; those are, I think, facts that nobody would dispute.

REQUIREMENTS FOR U.S. NAVAL FORCES

Senator INOUYE. With the military collapse of the Warsaw Pact nations and the increasing warning time that we apparently have now on the invasion of NATO Europe, has our requirements for naval forces been altered in terms of numbers, types, and capabilities?

Admiral KELSO. Well, I think our requirement in the Atlantic is basically to be able to provide protection for reinforcement or resupply ships in a conflict, to support the northern flank of NATO, and to not give up NATO soil. If you assume that there is a possibility of a threat and the capability of the threat that could be imposed, I do not think there is much change, because the Soviet navy basically still has the same capabilities to do so.

In other words, if you look at the equation of what you might have to do if you had an all-out conflict, I do not think that has changed. I guess the judgment today is whether that is still a likely possibility or not, sir.

NATO CONTRIBUTIONS

Senator INOUYE. How are our NATO allies responding to this new condition?

Admiral KELSO. Some are reducing defense spending. Some few are holding about where they were. I would say in general the feeling in the European population is that they see an era ahead where they will not have to spend as much on defense as they have in the past, much as some people in this country feel. So, country by country, I could tell you some that have held their defense spending at a growth rate, a very small growth, and some that are in a decline.

It tends to be the smaller nations that are in a decline. Some of the larger nations are holding fairly steady.

COUNTERNARCOTICS

Senator INOUYE. You command an area that involves the introduction of narcotics into the United States. Do you believe that DOD participation in this war on drugs will have any impact?

Admiral KELSO. Yes, sir, I do. I have never known for sure whether we can be completely successful. I think that is probably not true. But I am certain that we are making it more difficult to move drugs into our country today—not that we have stopped it. I think we are getting smarter about it day by day, and I think we will improve in that.

It is a difficult job and one that we are having to learn how to do. I think we are beginning to learn more about it and how to employ our assets, and I think we will improve our effort at doing so.

We are already forcing them to change their modus operandi for moving drugs, so I think we are having an effect on them. I would like to do more. I will continue to work at it, and we will be more successful. I would not like to give you the view that I think we can seal the borders on a 360-degree basis, because what tends to happen is that when we are successful in one area, they move to another area. They are not dumb people, and they pay attention to how we react.

CINC INITIATIVES FUND

Senator INOUYE. Last year, as you know, as an outgrowth of our hearings we established the CINC initiatives fund. Can you tell us the projects that will be funded in your Command this year?

Admiral KELSO. Senator, I have requested the projects to the chairman and they are in the process of deciding what they are going to fund.

Senator INOUYE. What did you request, if I may ask?

Admiral KELSO. We requested primarily things that would support us in areas of assistance to law enforcement agencies in the small nations in the Caribbean, where we have difficulty getting assistance today, to make them more proficient in supporting the effort against drugs. And that was our primary emphasis, to give them a better capability to support our total efforts in that area of the world.

They are very appreciative of that little bit of help that we can give them, and it makes a big difference in some of these smaller countries in my area of responsibility since they are very small with small populations and few resources.

Senator INOUYE. Thank you.

Senator Stevens.

APPOINTMENT AS CNO

Senator STEVENS. Thank you.

Good morning, Admiral.

Admiral KELSO. Good morning, sir.

Senator STEVENS. My little note here says that the Secretary has announced you are to be the successor CNO. Have you served in the Pacific?

Admiral KELSO. Yes, sir; I have, on two occasions. I commanded Submarine Squadron 7 in Pearl Harbor and I served there as a young officer in the 1950's. My first deployment was in the Pacific, sir.

Senator STEVENS. How long since you have been out there?

Admiral KELSO. My last job in the Pacific was 1978, sir.

Senator **Stevens**. I think the two of us would encourage a visit in the near future.

Admiral **Kelso**. Yes, sir.

Senator **Stevens**. Things are changing rather rapidly out there, as I am sure you know.

Admiral **Kelso**. Yes, sir.

PRESIDENT'S TRIP TO COLOMBIA

Senator **Stevens**. Do you think the President's trip to Colombia was important as far as your counternarcotics effort?

Admiral **Kelso**. Yes, sir; I think it was in the sense that, hopefully, it helps us to have better cooperation with other countries in that part of the world. I think the more cooperation we have, the better we can do our job, because I think as we become successful in one area, the drug dealer will move to another. We will need the help of those people who are at the source because the closer you can get to the source to stop it, the less resources you need to do the job.

I hope the President's efforts were successful in getting them to continue to cooperate with us.

SECURITY ASSISTANCE

Senator **Stevens**. In your statement you said:

> Unfortunately, the impact of near-zero security assistance allocations to the region since 1987 is starting to show its effect with the degradation of U.S.-provided equipment to the region and the subsequent erosion in confidence, seriousness and U.S. credibility regarding the emphasis on a cooperative counternarcotics policy.

Are part of the projects that you have recommended in the area of counternarcotics policy part of your fund as CINC?

Admiral **Kelso**. Yes, sir.

Senator **Stevens**. Have you any specific instances you could tell the committee on this loss of credibility and erosion of confidence?

Admiral **Kelso**. Yes, sir; I can give you a good example. Subsequent to Grenada, we asked the small region of the eastern windward Caribbean to form a regional security force, which I think we as a nation recognized we would have to support with some funding in order to get them to do so. They reluctantly agreed to form this regional security force, and then in the 1988 timeframe basically we pulled the rug out of the funding to support that.

Now they have continued to support it, but certainly not at the level that they could have. It does not take much money in my AOR to make a big impact because the nations are very small and have few resources. So we are not talking about a lot of money, but that reduction in aid has, I think, hurt our influence in that area of the world.

Senator **Stevens**. I recently spent some time with people who are quite familiar with the Caribbean and that whole area. They indicated to me that there has been a lack of interest expressed by Members of Congress in Grenada since we left there. Is that your impression?

Admiral **Kelso**. Well, I think they would say that from the standpoint of the fact that the small amount of foreign aid that they have gotten has been reduced. Certainly that would be their impression in that regard, sir.

Senator **STEVENS**. These people also said that we had a tremendous amount of war material that got to Grenada after the whole thing folded down and that we ought to go in and find out what happened to that war equipment that arrived there after the island was secured. Can you tell us anything about that?

Admiral **KELSO**. No, sir. I would be happy to answer that for the record. I have visited most of the small countries down there, and their security forces are equipped with small arms and that sort of thing. They do not have much in the way of major equipment, so I would be surprised if there is much of that there.

Senator **STEVENS**. Could you tell us for the record what happened to the equipment we did take to Grenada?

Admiral **KELSO**. Yes, sir; I will try to answer that for you.

[The information follows:]

No U.S. military equipment was left on the island of Grenada following withdrawal of American forces in October 1983. However, in order to ensure continued area stability, a Caribbean Peace Keeping Force (CPF) was established. Island Breeze was the term given to these peace keeping operations.

In 1984, Congress appropriated $15M for Island Breeze operations. An additional $5M was appropriated in 1986, and $2M in 1987 for a total of $22M. Major elements of "Island Breeze" included:

a. Equipping, training and supporting the Caribbean Peace Keeping Forces (CPF) stationed in Grenada from 1983 to 1985.

b. Equipping, training and supporting the reconstituted Royal Grenadian Police Force (RGPF).

c. Equipping and training the security forces of the CPF nations in their home country.

d. Selected construction upgrades of CPF security force facilities.

The initial participating nations in the CPF were: Antigua-Barbuda (AC), Barbados (BB), Dominica (DO), St. Lucia (SL), St. Vincent and the Grenadines (VC) and Jamaica (JM). Later, Grenada (GJ) and St. Kitts-Nevis (SC) were recipients of "Island Breeze" funded equipment, training and support. The equipment provided to the Caribbean nations as a result of "Island Breeze" are not major military items. The equipment is intended to maintain a small, para-military force in each of the Eastern Caribbean islands called a Special Service Unit (SSU) made up of selected police personnel. The SSUs, through a Memorandum of Understanding of the participating nations, would join up under the umbrella of the Regional Security System with the Antigua-Barbuda and Barbados Defense Forces to form a larger force as the Eastern Caribbean Council of Ministers required.

The table below lists the items of equipment provided to CPF forces while they were in Grenada:

ITEM	AC	BB	DO	SL	VC	JM
1/4 ton truck	1	3	1	1	1	10
5/4 ton truck	1	2	1	1	1	5
2 1/2 ton truck	0	2	0	0	0	1
1/4 ton ambulance	0	2	0	0	0	1
1 1/2 ton trailer	0	5	0	0	0	3
400 gal. water trailer	0	3	0	0	0	1
AN/PRC-77 radio	1	7	3	3	1	9
AN/VRC-46 radio	1	4	1	1	1	12
AN/VRC-47 radio	1	2	1	1	1	5
AN/GRC-106 radio	0	0	0	0	0	1
FM radios Motorola	2	15	6	5	2	21
Base Station Motorola	0	2	0	0	0	2
Mobile Station Motorola	0	2	1	1	0	2
RC-292 antenna	1	2	1	1	1	2
Pistol M1911A1	1	12	5	4	4	0

Rifle M16A1	9	105	40	30	10	14
M79 Grenade Launcher	1	6	4	3	1	9
M60 Machine Gun	1	7	3	2	1	9
M1D Rifle	0	1	0	0	0	3
Night Vision Scope	1	11	4	3	3	14
Night Vision Goggles	1	11	4	3	3	14

The table below lists the items of equipment provided to CPF forces in their home country:

ITEM	AC	BB	DO	SL	VC	JM
1/4 ton truck	2	3	3	1	1	4
5/4 ton truck	3	2	3	3	3	0
2 1/2 ton truck	0	0	0	0	0	12
AN/PRC-77 radio	7	16	4	5	5	18
AN/VRC-46 radio	2	3	3	1	1	2
AN/GRC-106 radio	1	1	1	1	1	1
RC-292 antenna	3	3	3	3	3	2
Pistol 45	10	25	5	6	6	0
Rifle 5.56mm	60	140	35	40	44	0
M79 Grenade Launcher	7	16	4	5	5	30
M60 Machine Gun	5	11	3	3	3	15
M1D Rifle	2	2	2	2	2	4
Night Vision Scope	7	16	4	5	5	0
Night Vision Goggles	7	16	4	5	5	28

The table below lists the items of equipment provided to Grenada and St. Kitts-Nevis security forces:

ITEM	GJ	SC
1/4 ton truck	4	4
5/4 ton truck	6	6
1/4 ton ambulance	1	1
AN/PRC-77 radio	8	8
AN/VRC-46 radio	6	6
AN/74B radio	3	3
RC-292 antenna	3	3
Pistol 45	10	10
Rifle 5.56mm	80	80
M79 Grenade Launcher	7	7
M60 Machine Gun	7	6
M1D Rifle	4	4

The current status of this equipment is as follows:

a. The majority of the equipment issued in "Island Breeze" is still present in the nations. Most of the weapons, radios and night vision devices are still in operational condition. Vehicles, however, are in varying states of repair. The majority of the vehicles issued to Jamaica are generally operable.

b. In addition to the equipment above, each participating nation also received uniforms, field equipment, some repair parts, ammunition items and field rations as part of "Island Breeze". The majority of these items have since been consumed and/or used as part of everyday operations and training.

There were also various construction projects to CPF facilities as part of "Island Breeze". Included in these were:

a. Construction of ammunition bunkers, motor pools and supply buildings in all participating nations.

b. Construction of the Grenada Special Service Unit Compound.

c. Construction of the Union Island (St. Vincent) Special Service Unit Compound.

d. Construction of the Jamaican Defense Force Airwing hanger.

e. Construction upgrades of the Antigua/Barbuda Defense Force and Barbados Defense Force training facilities, rifle ranges and physical training course.

For a comparison, prior to the intervention, the following equipment was slated for Grenada by the Soviets, Cuba, Czechoslovakia and North Korea.

10,000 assault and other rifles
4,500 machine and submachine guns
11.5 million rounds of 7.62mm ammo
294 rocket launchers
16,000 rockets
84 82mm mortars and 4.800 shells
12 75mm cannons and 600 shells
15,000 hand grenades
7,000 land mines
60 armored personnel carriers
150 radio transmitters
160 field telephones
23,000 uniforms and 7,700 tents

SOVIET NAVAL MODERNIZATION

Senator STEVENS. In terms of the Soviet navy, is it your understanding that the *Kirov* class and the *Tbilisi* class carriers, the first a cruiser, the second an aircraft carrier, are being terminated?

Admiral KELSO. No, sir; I do not have anything to tell me that they are being terminated. I think they have built four of the *Kirov* class. I do not think we expect them to build much more than that. But the *Tbilisi* has been on sea trials in the Black Sea. And as best I know they continue to build carriers beyond that.

Senator STEVENS. This is a closed session. Let me just put it this way. Can you tell us what is your assessment of the modernization of the Soviet navy, as you understand it?

Admiral KELSO. Well, my assessment is that the Soviet navy has continued to carry on at the same rate of building that they had planned over the last several years. They have continued to build the same number of major surface ships a year. They have continued to build somewhere around eight to nine submarines a year. They have continued to modernize the Soviet air force by bringing more modern airplanes into the inventory. And they have continued to work the technology for an aircraft carrier that can fly fixed-wing aircraft.

And that is about what we expected them to do. They have continued to modernize their strategic submarine force as well during this period. I count strategic submarines among the nine produced annually including the more modern Delta-4. We believe they have terminated the *Typhoon* class at six, but that is about what we expected them to build anyway.

So it appears to me that they have continued their efforts to modernize through this period without much abatement, sir.

AIRLIFT AND SEALIFT

Senator STEVENS. Well, I just have one last question. I visited yesterday with General Johnson, who will follow you, concerning the amount of freight that is moved by air for the services.

Have you ever analyzed the Navy's movement of freight to see how much of it that moves by air could have moved by surface, except for the timeframe determined by the shipper or the requesting entity in the Navy?

Admiral KELSO. I cannot say that I have analyzed it. I can tell you that we quite often have moved by sealift as fast as we can because it is cheaper. A prime example was in the Persian Gulf, when we first started to build up out there during the period of the Iran-Iraq war. We almost had to do it by air to begin with, but we saw that right away was not a very good way to do it. So we moved, as soon as we could, to sealift in order to reduce the costs from airlift, because we clearly have to live within a budget.

Senator STEVENS. That was the example he used, too, and I think that is a valid example of need. Some of us went out in the very early days and looked at that whole operation, and I agree with you that there was a great need to establish supply lines and establish quantities of supplies so that they could meet requests in a matter of real time.

But the U.S. Department of Defense is probably the largest shipper of goods in the world.

Admiral KELSO. I would believe that, sir.

Senator STEVENS. And yet its sealift is probably the smallest. I am trying to find out who set the priorities so that we eliminated the Defense need for sealift. We are constantly urged to put sealift into place, but the people who are asking for it are not the ones that are using it. I would like to see the Department of Defense analyze the shipments to find out how many of those shipments could have gone by sea and give us some indication of how much we would have saved if we had had sealift during this period we have gone through.

I am not against air power. As a matter of fact, I come from a State that has great interest in air operations. As a matter of fact, we have got fewer roads than Hawaii does. As a practical matter, the cost of air freight, when the alternative is to ship by sea, is staggering. I would like to see some analysis by the Navy of your sister services, because the sealift would be operated by the Navy, or at least for the Navy.

We all say we need it, yet when it comes right down to it, there is no demand from the Department of Defense for sealift that I know. It is for sealift capability in the event of emergency, but the day-to-day operations are still by air.

Admiral KELSO. No, sir; a lot of our cargo goes by sea. On a day-to-day basis, the Military Sealift Command operates a large number of ships that move a lot of our cargo by sea, not by air. In fact, the idea is to only move by air what you need on a time basis, like a spare part to repair a ship or something like that. But the general freight goes by sealift. Practically all of our petroleum products, for example, go by sea on day-to-day basis.

Senator STEVENS. Well that would be pretty hard to send by air. I am not talking about tankerage. I am talking about cargo vessels.

Admiral KELSO. I will be happy to try to answer for the record for you what we do in the U.S. Atlantic Command and maybe that would give you an idea of how much we move by air and how much we move by sea. I believe I can do that for you, sir.

[The information follows:]

[Deleted.]

Senator **Stevens**. We have been dedicated in this committee to trying to provide some additional sealift, but the more I see it, we fight the battle every year and as a practical matter it falls away because I do not think there is a real demand from the Department itself for that lift. I think that some people would just like to have it in case we need it, but I do not think it has been established that it is needed now, needed on a daily basis. I think the Department needs to analyze that and justify it, and then we would be able to move forward with a sealift modernization program a lot faster if the demand was right there in the Department of Defense.

Admiral **Kelso**. Senator, I do not believe that—I think we move more cargo by the sea than perhaps you have a perception of in our day-to-day business. The Military Sealift Command operates those ships. We also contract commercial ships to carry things for us quite often. Maybe General Johnson can answer that in a little more detail.

Senator **Stevens**. I have asked him, and he is going to look at it from an overall point of view.

Admiral **Kelso**. I think the sealift need that we quite often talk about is the sealift we would need in the event of a national emergency, much as we have in the past when we had a major national emergency. It has not been, in my judgment, economically possible to operate ships in this country over the Atlantic. The western world, for example, has declined in the number of ships we operate because it is not an economical proposition to operate those ships.

We have bought a considerable number of ships over the last several years to lay up and have available in the event of a national emergency, and they exist today.

The real issue is whether we are going to have a viable merchant marine or not, and we have not been able to figure out a way to do that over the past few years that would take care of any emergency in the future. We are in a position today, if you really are talking about a full-blown conflict, where we would have to use our allies' ships to carry the goods across the Atlantic or we would not have enough ships to do that job.

Senator **Stevens**. I know that. That is disturbing to us and has been disturbing to the committee.

Thank you very much, Mr. Chairman.

Senator **Inouye**. Thank you.

Senator D'Amato.

COUNTERNARCOTICS

Senator D'**Amato**. Thank you, Mr. Chairman. I just, Admiral, would like you to touch on one thing, if you might, if you have not already, and that is the controversy that swirled around about the *JFK* off of Colombia. Let me ask you, how did that come about? The reason I ask you, are we going to have that same kind of situation as it relates to our entry into the drug war? Are we going to have the same kind of problems with interdiction programs? Is this being operated on an ad hoc basis, isolated from each other? How are we going to do this?

First, give me the question on the JFK. You probably have answered that already.

Admiral KELSO. Well, I do not know all the answers, so I will give you my opinion. We had put a plan together to operate the task force, which included a carrier because the carrier has some unique capabilities in a drug war. It allows you to use the AEW airplanes off a carrier to integrate with the E-3 from the Air Force. It reduces the demand upon the E-3 and this is a very intensive resource game because the drugrunners can move in so many areas.

And it also allowed us to put interceptors in the right place so we could look at whatever we wanted to and tell what it was, because one of the problems is to figure out which was the bad guy versus a lot of good guys. And the closer to the source, the less resources you use.

We wanted to coordinate that with the Colombians because it would be a better effort if they would [deleted] so they could make decisions to board their vessels and that sort of thing. But the Panama operation politically changed the view within the country and so the Colombians, for whatever their political reasons, did not want us to have a large capital ship operating in the vicinity of their borders. I think because of their internal politics, they were worried about supporting that effort.

So I think before we can do that, in order to get them to agree, some time will have to elapse. But that was our effort. I think it was a good idea; I would still like to do it as soon as we can, because I think integrating those assets in the drug war is very important to us so that we are putting them where they need to be and are using them properly.

Senator D'AMATO. Was there a period of time when the Colombians did agree to this operation?

Admiral KELSO. I do not know the answer to that question, Senator. If they did, I am not aware of that.

Senator D'AMATO. How it is, then, that the carrier came to be in that region?

Admiral KELSO. We never sent the carrier to that region. It was a plan to put the carrier in that region. And when we were not permitted to move it to that region for the political situation which caused that, we operated a carrier around Puerto Rico for training purposes. But it never got off the coast of Colombia. That was reported improperly in the press; it never got down there.

Senator D'AMATO. Had they been advised of the use of the carrier or other ships as it relates to integrating with other countries in that region, as it relates to the interdiction of drugs coming up to the United States?

Admiral KELSO. Well, not the carrier; no, sir. We have not been advised that we can do that yet. I am still hopeful that we will be able to in the future and that we will be able to coordinate it with the other countries in the region. I will give you an example.

We quite often see a small airplane which is taking cocaine north to drop it to a vessel to move into the United States. If we are smart enough to be there—and sometimes we are—he will not drop it. He will return. Well, we can track it right back home. So we would like to develop a procedure so that we can tell the nation where he is coming back to that we believe this gent is carrying contraband and hope that they will interdict it.

We need to work those kinds of issues. I fully agree with you, sir.

Senator D'AMATO. What, if any, cooperative effort do you have with the Mexicans in relationship to this?

Admiral KELSO. The Coast Guard has some cooperative relations with the Mexicans, and I am not familiar with the details. We at LANTCOM do not because they normally do not choose to operate with the Department of Defense forces for their own political reasons, sir. Their navy, for instance, does not normally operate with us.

Senator D'AMATO. Thank you, Mr. Chairman.

SOVIET NAVAL MODERNIZATION

Senator INOUYE. Admiral Kelso, I am reading from the Soviet Military Power 1989 report of the Department. I would just like to have your thoughts on this:

> The Soviet navy has continued to evolve as an increasingly modern force, capable of meeting the requirements of conventional, nuclear war at virtually any level. It is true that fewer numbers of the current generation of major surface and submarine combatants are being built than in past decades, signifying the declining force structure trend in the 1990's. However, the increased individual capabilities of the new vessels will more than offset the numerical reductions in some but not all, missions. These production rate reductions undoubtedly predate General Secretary Gorbachev's announced initiatives; however, the future rates are uncertain.

What do you mean by "the increased individual capabilities of new vessels will more than offset the numerical reductions in some, but not all, missions"? What are those missions in which the increased capabilities will not offset the numerical reductions?

This would suggest that in most missions the increased capabilities have strengthened the Soviet navy, but in some it has not. What areas are the Soviets weaker now?

Admiral KELSO. I am trying to think how to answer your question, sir. I certainly would say they are not weaker in submarines. They are not weaker in air power. They are not weaker in major surface combatants. They are improving their capability for fixed-wing air at sea.

I think you might say that if you took total numbers, the ships that they have gotten rid of have been ships that they have basically not used for years anyway. They have gotten rid of *Whiskey* class submarines; for example, in some numbers, but they have not been operated for some time. They have simply been hulks sitting alongside a pier. In some cases, some surface ships have been basically on their side. [Deleted.]

I would say perhaps in some of the smaller areas like coastal vessels they have not necessarily increased any, but they have built some patrol vessels with more modern missiles, even on those. But I cannot think of any major area, in my view, where they have degraded their capability substantially.

Senator INOUYE. The only one I could find was in amphibious forces.

Admiral **Kelso**. Well, I do not think they have changed that much. They never have had large amphibious forces, but they certainly have capable ones for small operations.

Senator **Inouye**. Is it also true that most of the vessels now being decommissioned were not only scheduled for such action before the Gorbachev initiatives but were those that were built in the 1960's?

Admiral **Kelso**. Yes, sir, quite a few of them are ships that old. They are *Whiskey* class submarines, *Kashin*-type destroyers, ships that basically they were operating when I was a young officer, in the 1950's and 1960's, which have not been used for years. And I think their reason to get rid of them is, No. 1, it takes a lot of effort to take care of them. They are hard to maintain. And they are trying to sell them to make money in the scrap market in the world. In fact, we have some United States companies who have cooperative efforts to get their money out of Russia by getting their money out of scrap that they have given them.

Senator **Inouye**. So am I correct to conclude that the Soviet navy today may be fewer in number as far as vessels are concerned but with greater capabilities than the navy of the past?

Admiral **Kelso**. That is my opinion, sir.

Senator **Inouye**. Senator Cochran just walked in.

Senator **Cochran**. Good morning, Mr. Chairman.

Mr. Chairman, you may proceed.

Senator **Inouye**. I am finished now. We have got to get the Mississippi navy in here.

Senator **Cochran**. Thank you very much.

Good morning, Admiral Kelso. Welcome.

Admiral **Kelso**. Good morning, Senator.

Senator **Cochran**. I do not have any specific questions for the witness, Mr. Chairman.

Senator **Inouye**. Well, once again we would like to congratulate you on the new appointment as CNO. As I said, smooth sailing. We look forward to working with you, sir.

Admiral **Kelso**. Thank you, sir. I hope your colleagues on the Senate Armed Services Committee will feel the same way for the hearing.

Senator **Inouye**. We will put in a good word, sir.

Admiral **Kelso**. Thank you, sir.

ADDITIONAL COMMITTEE QUESTIONS

Senator **Inouye**. We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR INOUYE

SOVIET SHIPBUILDING

Question: Admiral Kelso, a great deal has been written about changes in the Soviet threat, but you note continued Soviet efforts in ship construction. Have you seen any signs of a slow down in Soviet shipbuilding?

Answer: The Soviet naval construction program has shown very little sign of slowdown. Production levels in the four years since Gorbachev came to power in 1985 are slightly below the levels of the previous five years.

The Soviets launched four surface combatants in 1989 equalling about 46,000 tons. We project the Soviets will [deleted] This compares with an average of about five ships and 50,000 tons per year between 1986-1988 and 5.2 ships and 55,000 tons per year in the early 1980s.

In submarine construction, the Soviets launched nine submarines in 1989 for a total of 61,000 tons and are expected to [deleted] This compares to a launch rate of about nine submarines and 56,000 tons per year between 1986-1988 and 8.4 submarines and 50,000 tons per year between 1981-1985.

SOVIET AIRCRAFT CARRIER

Question: Your statement notes the construction of a third aircraft carrier, yet there have been some reports that this program may be cancelled. Have you received any such signals?

Answer: Soviet Navy and defense critics in the media and Congress of People's Deputies have engaged in an unprecedented public debate over the future of the carrier program. The critics have contended that the carriers are too expensive, unneeded, and inconsistent with the new "defensive strategy". The Navy has replied with a concerted effort to publicize the TBILISI and has argued that the carrier's versatility makes it cost effective and enables it to be either offensive or defensive according to the aircraft it embarks. To date there has been no indication that the program is being curtailed or cancelled.

SOVIET NAVAL MODERNIZATION

Question: I understand that the Soviets may have cancelled the KIROV cruiser program. If this is correct how does that match up with your statement that Soviet Naval Modernization continues apace?

Answer: The KIROV is just one element of the Soviet naval modernization program. The Soviet's continue [deleted]

There is no indication that any of these programs are being terminated.

Question: Considering the economic problems in the Soviet Union, why do you believe that their Naval forces will continue to be modernized?

Answer: Soviet decision-makers continue to consider the primary mission of the navy, which is to field and protect the strategic-ballistic missile force, to protect the Soviet homeland against nuclear-capable hostile threats from the sea, and to support the seaward flanks of Soviet ground forces, as vitally important to the Soviet Union. In this context, Soviet sea-based nuclear forces continue to modernize with both improved missiles and submarines. The Navy's expanding role in the continental air defense and combined arms operations has also meant continued development and modernization.

SUSTAINMENT OF SOVIET NAVAL MODERNIZATION

Question: Do you think this Naval modernization program can be sustained?

Answer: The Soviet Union faces difficult economic challenges in the years ahead, which will require hard choices in the allocation of scarce resources. However, evidence to date is that the Soviets will continue to sustain Navy programs and are continuing to modernize their shipbuilding infrastructure and yards in order to construct the naval units to support their national interests.

U.S. NAVY'S ROLE IN COUNTERNARCOTICS

Question: Admiral Kelso, your area of responsibility is seen as the principal approach for illegal narcotics entering the United States. Joint Task Force four (JTF four) in Key West, which reports to you, provides both Coast Guard and Navy assets and personnel in the "War on Drugs." Could you provide your views on what drug interdiction activities should be performed by U.S. Navy forces versus domestic Federal agencies such as the Coast Guard and Customs Service?

Answer: The FY 89 Defense Authorization Act assigned DOD the mission as lead agency for Detection and Monitoring (D/M) of illegal drugs entering the U.S. Lead agency status for Interdiction remains the mission of the Coast Guard and Customs Service. Drug interdiction activities should remain unchanged; that is, Coast Guard and Customs should remain involved in all phases of interdiction. Under our current concept of operations, interdiction activities are planned by the Coast Guard and Customs Service and DOD D/M resources are positioned in supporting roles. Additionally, DOD assets are used independent of planned operations to provide wide-area D/M coverage.

[Deleted] On Naval vessels performing counternarcotics operations, Coast Guard Law Enforcement Detachments (LEDETs) are embarked and tactical command of the vessel is often passed to the Coast Guard for the interdiction phase.

JTF-4

Question: Why is JTF-4 commanded by a Coast Guard instead of a Navy Admiral?

Answer: During December 1988, as plans were formulated to conduct counternarcotics operations, I selected VADM Jim Irwin to head up Joint Task Force Four based on several key factors. My primary concern was executing the mission as soon as possible. I felt it would be beneficial to put an Admiral in charge with counternarcotics background -- one who would not spend months of valuable time in a learning curve process. Admiral Irwin's background made him an ideal candidate and I am most appreciative to the Coast Guard for making him available. I also believed it would be advantageous to have an officer familiar with the operation of Coast Guard and Customs Forces to establish the liaison with the agencies required for the needed close coordination between those organizations and DOD forces. His knowledge of counternarcotics operations, the key players, and the key agencies involved paved the way for smooth and rapid establishment of LANTCOM counternarcotics operations. I subsequently chose a Navy Admiral as VADM Irwin's deputy and have staffed JTF-4 with members from all the Services.

SLOC REQUIREMENTS

Question: As Commander in Chief of the Atlantic Command, you are responsible for ensuring that our lines of communication to NATO Europe remain open during a war against the Soviets. The speedy transit of equipment, supplies and reinforcements is considered essential to the successful defense of Western Europe. How have these requirements changed for the other NATO nations which contribute to keeping open the sea lanes?

Answer: The requirement to protect the sea lines of communication has not diminished, and the non-U.S. NATO nations provide substantial forces to support that mission. At present, our NATO allies provide approximately 47% of committed surface combatants, 27% of the nuclear attack submarines, 30% of the maritime patrol aircraft, all of the diesel-powered submarines and the only ASW carriers. European nations provide virtually all of the mine countermeasures ships and nearly one-half of the reinforcement and resupply shipping.

FORCE REDUCTION COMPENSATION

Question: Your statement last year said you had about 30 fewer U.S. surface combatants for your war plans. By the end of fiscal year 1991, you say 25 active ships will be retired. How have you modified your operational war plans to reflect and compensate for these force reductions? How have you changed your estimate of your ability to accomplish your mission to reflect these reductions and the improvements you say have occurred in Soviet naval forces?

Answer: We have not modified our operational plans but it is clear that the risk to successful execution of our plans increases as we reduce numbers of forces. The modernization of both our forces and Soviet forces also may cause the risk to successful execution to change. CINCLANT has never had sufficient forces to accomplish all SACLANT tasks simultaneously and has admitted this for some years. We have not for instance, since the forties, had sufficient naval escorts to convoy all required merchant ships. As we reduce forces, we add to the difficulty in carrying out our plans should conflict arise. We will not be able to execute all our plans at the same time.

SOVIET NAVAL DOCTRINE

Question: Admiral, events in Eastern Europe and the Soviet Union clearly have undercut the Soviet ability to threaten or invade NATO Europe. The Soviet Chief of Staff even has complained about sagging morale and draft evasion. The Soviets appear to be implementing a more defensive doctrine with their ground forces. Is there any evidence this is the case with their naval forces?

Answer: The Soviet Navy's shift to a more defensive doctrine is evident in the increase in naval operations in the Barents and Northern Norwegian Seas. [Deleted] At about the same time, the Navy began to play a greater role in providing for the strategic defense of the Soviet Union as naval forces began to integrate with Soviet Air Defense forces. This has been evident in Soviet naval exercises, which have shown a roll back from the defense of the GIUK gap last seen in 1985 to exercises conducted in the Barents-Norwegian Seas and an increasing focus on air defense, including the incorporation of sea based air defense and the Soviet KIEV class carriers. But, the shift in exercise posture in no way diminishes the threat inherent in the 67 attack and cruise missile submarines assigned to the Northern Fleet. In fact, a sustained submarine building rate of nine units per year is steadily improving the offensive capability of this key element of Soviet naval power.

SOVIET NAVAL R&D AND PRODUCTION

Question: As the Soviet economy tries to reform through conversion to civilian activities of military research, development, and production capacity would you expect that Soviet naval R&D and production will be affected?

Answer: Although there has been increased focus on the Soviet government's effort to increase consumer goods through conversion, this has had little impact on Soviet naval R&D and production. Recognition of the Soviet Navy's strategic missions probably accounts for continued modernization and development.

SOVIET NORTHERN AND BALTIC FLEETS

Question: What are the major operational weaknesses and strengths of the Soviet Northern and Baltic Fleets today? How do your operational war plans specifically counter these strengths and exploit these weaknesses?

Answer: Since Gorbachev came to power in 1985, a succession of new highly capable units have entered the Soviet Northern Fleet. The Fleet's strategic ballistic missile submarine force has been augmented by six new TYPHOON class submarines with 20 multi-warhead missiles each and by seven new DELTA IV class submarines each with 16 multi-warhead missiles. The improved missiles on these submarines allow Soviet SSBN's the capacity to strike targets throughout the United States while operating under the polar ice cap or patrolling in well defended bastions in the Barents Sea.

The Soviets have also placed an increasing reliance on their bomber force equipped with long range air launched cruise missiles. While these bombers are based inside the Soviet Union, they must use routes carrying them over sea areas in the Barents and Norwegian Seas in order to strike targets in the United States. To ensure control of these areas in wartime, the Soviets have been making a major effort to extend their air power to seaward. They have introduced their most modern land based aircraft, the MAINSTAY AWACS, and [redacted] fighters and interceptors such as the FLANKER and FOXHOUND into the area and have linked these forces to their naval forces including carrier aviation.

The BAKU, a much improved KIEV class VSTOL carrier has deployed to the Northern Fleet. The TBILISI--the Soviets first carrier to handle high performance fighters--is expected to join the Northern Fleet in 1991.

Northern Fleet and Baltic Fleet land based naval aviation has been expanded and modernized. BACKFIRE bombers, introduced into both the Northern and Baltic Fleets, provide a supersonic strike capability.

[Deleted]

The Northern Fleet has also benefited from the continued entry of highly effective surface combatants such as the KIROV class nuclear cruiser and the SOVREMENNY and UDALOY class destroyers. At the same time they have improved the capabilities of their general purpose submarine forces and have introduced the AKULA and the SIERRA SSN, whose combat capabilities approach those of modern U.S. attack submarines. Despite arms control, the Soviet Navy still has more than 130 nuclear powered attack and cruise missile submarines and about 60 ballistic missile submarines and continue to produce new submarines at a steady rate of nine per year. Although these new units are fewer in number than the older units they are replacing, they are far more capable. For example, over the past five years, there has been a steady increase in the number of missiles the Soviets can put to sea despite a slight decline in the numbers of units and that trend will continue despite the larger reductions we anticipate over the next five years. The greatest weakness of the Soviet forces continues to be in lack of operational training at sea. The amount of time spent pier side rather than at sea raises serious questions about their ability to respond quickly to a crisis and to sustain operations for long periods of time outside their heavily defended bastions. Nonetheless, it is apparent that this leaner but more capable Soviet Navy we now face will still be more than able to conduct a wide variety of combat missions and that it will remain the primary naval force confronting us in the Atlantic.

U.S. NAVY OPERATIONAL TEMPO

Question: We all agree that the significant changes in Soviet defense posture have altered U.S. defense requirements for the near and mid term. Secretary Atwood in his testimony to this committee indicated, however, that the impact on the Navy will be minimal. Admiral Kelso, given the changes in Soviet Union naval operations, including a major reduction in blue water training, why should the U.S. Navy continue a high tempo of operations.

Answer: The Navy's operating tempo is determined by its required overseas deployments and time at sea required for training. The time at sea in deployed units is significantly affected by what tasks deployed units are assigned. In recent years, we have provided for 50 days per quarter at sea while deployed and 29 days per quarter for units training at CONUS and Hawaiian bases. My experience tells me operating less than 29 days/quarter will be inadequate to maintain a ready unit and this may be too little if you do not reap the rewards of training received during deployments. Ships deployed are normally operating more to show U.S. presence, conduct bi-lateral exercises, conduct Alliance exercises and respond to national level taskings. In the last few years, we have additionally taken on an additional OPTEMPO driven by drug detection and monitoring (this is an increasing role). The commitment of our Navy to continuous deployed presence such as the Mediterranean, Persian Gulf, Western Pacific, Indian Ocean plus multi-lateral and Alliance exercises and at sea training will result in substantial OPTEMPO of our Navy and this OPTEMPO will be driven in an upward direction as we reduce the size of the Navy without a concomitant reduction in deployed presence, readiness or both.

U.S. NAVY OPERATIONAL TRAINING

Question: What part of Navy operational training could be effectively accomplished in areas close to the U.S.?

Answer: Effective Atlantic Fleet operational training is accomplished daily in the Virginia Capes and in relatively close proximity to other major naval bases. Additional training is conducted routinely in the Puerto Rico Operations Area using various scenarios and groups of ships. Reciprocal training including NATO forces and bi-lateral passing exercises (PASSEXs) are also conducted in the Caribbean Operations Area. However, since our major effort remains a forward defense strategy, it is in our best interest to periodically train in the areas and climate where we may have to fight. Our strategy has little deterrent value or credibility if it is not practiced in the severe climate of the North Atlantic. We also must operate with the forces of our NATO Allies to insure all forces are interoperable and properly trained together. It is also necessary to coordinate SACEUR's land and sea based forces with SACLANT's forces to insure a robust capability to operate together.

SHORE BASED BILLETS

Question: How would reduced extended deployments reduce the requirements for shore based billets needed to provide non deployed employment?

Answer: Shore based billets do not exist to simply provide employment for sailors when they are not at sea. The shore billet structure supports fleet readiness in the areas of training, material maintenance, logistics, supply, and support tasks. While a reduced deployment cycle will decrease required shore establishment support in some areas (e.g., logistics and supply) demands in other areas would actually increase (training support and maintenance to sustain current levels of crew and ship readiness). Overall, there is no significant correlation between a reduction in extended deployments and any concomitant reduction in shore billets given a level force structure. On the other hand, shore based infrastructure should be reduced commensurate with reductions in force level.

PHM MISSION

Question: Admiral Kelso, the Navy maintains six PHM hydrofoil ships which were purchased as part of a cancelled NATO program. They have a range of only approximately 500 miles, cannot operate in shallow waters and cannot steam along with a carrier battle group. What is the principal mission for these ships?

Answer: The PHM mission is surface warfare, and it is particularly suited to strike and reposition rapidly in coastal water, choke points and in operations from a fixed base. Moving-base operations have been organized with FFG-7s or LSTs.

PHMs are playing a significant role in our efforts in the Caribbean. They can operate at any speed from 0 to 50 knots. They operate hull-borne from 0 to 10 and on the foils from 10 to 50 knots. Hull-borne, their draft is 23 feet 4 inches with struts down and 7 feet 6 inches with the struts up. Foil-borne, their draft is 8 feet 6 inches. Pursuit of narcotics traffickers into shallow waters is possible either hull-borne with struts up or foil-borne. Few craft in the inventory offer the capabilities to interdict drug traffickers that approach those of the PHM. The PHM also provides a superior command and control platform for inter-agency operations because of sophisticated communications equipment.

PHM LIMITATIONS

Question: I understand that PHM's can outrun drug runners, but they cannot stop to apprehend them. The PHM can run at either 50+ knots or less than 10 knots -- but not between. Further, they cannot pursue drug runners into shallow areas like the Cay Sal Bank because they require a draft of over 20 feet depth. Are these ships really well suited for drug interdiction? Doesn't their unique limitations make other vessels more useful for drug interdiction?

Answer: PHM's can operate at any speed from 0 to 50 knots. They operate hull-borne from 0 to 10 knots and on the foils from 10 to 50 knots. Hull-borne, their draft is 23 feet 4 inches with struts down and 7 feet 6 inches in with struts up. Foil-borne, their draft is 8 feet 6 inches. Pursuit of narcotics traffickers into an area such as Cay Sal Bank is possible either hull-borne with struts up or foil-borne. It is certainly hazardous navigating in an area such as that, but few craft in the inventory offer the capabilities to interdict drug traffickers that are provided by the PHM. The drug cartels are intimately aware of the PHM's capabilities and realize that they can out-run most other law enforcement agency surface assets with go-fast boats. The PHM also provides a superior command and control platform for inter-agency operations because of sophisticated communications equipment. Even on foil the PHM has a significantly longer range than 500 miles and hull-borne her range exceeds 1000 miles.

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PHM DRUG INTERDICTION MISSION

Question: For the record, please provide the number of PHM hydrofoil drug interdiction missions, by month, for the past two years. Please list the number of requests by other Federal agencies for these ships -- by month.

Answer: DRUG INTERDICTION MISSIONS:

MONTH	NUMBER OF MISSIONS
1988	
JAN	0
FEB	3
MAR	4
APR	3
MAY	3
JUN	0
JUL	2
AUG	2
SEP	3
OCT	2
NOV	0
DEC	0
1989	
JAN	1
FEB	0
MAR	0
APR	2
MAY	3
JUN	3
JUL	0
AUG	4
SEP	2
OCT	4
NOV	7
DEC	4
1990	
JAN	10
FEB	9

There is little historical data available on the number of requests from other federal agencies. The following is the information available:

MONTH	REQUESTING AGENCY/NUMBER
OCT 1989	U.S. CUSTOMS SERVICE/1
DEC 1989	U.S. CUSTOMS SERVICE/1
FEB 1990	U.S. CUSTOMS SERVICE/1
MAR 1990	U.S. CUSTOMS SERVICE/1

(NOT FILLED DUE TO THE FACT THAT OTHER ASSETS ARE MORE READILY AVAILABLE, i. e. USCG PATROL BOATS).

As you can see, we expanded our efforts in the Caribbean in late 1989, and PHM use reflects this expanded effort.

PHM MANNING

Question: How many officers and men are assigned to these ships?

Answer: The PHM has four officers and 17 enlisted personnel assigned.

QUESTIONS SUBMITTED BY SENATOR BYRD

STRATEGIC HOMEPORTING

Question: Under the Navy's strategic homeporting program for dispersing some of its surface ships to a variety of new home ports around the United States, a battleship-led surface action group was to be homeported at a new facility at Staten Island, New York. A principal rationale for the strategic homeporting program, which was initiated in the early 1980's, was to relieve overcrowding at the Navy's major home ports as it grew toward its 15-carrier, four-battleship, 600-ship goal. A rationale for the Staten Island site in particular was that it would allow the Navy to deploy a powerful surface group into the North Atlantic in the event of a war with the Soviets with less steaming time than from Norfolk, Charleston, or Jacksonville. But the Navy peaked at 570 ships some time ago. In the future, the Navy will have, at most, 14 carriers, two battleships, and 550 ships. Moreover, the battleship slated for Staten Island, the Iowa, is to be deactivated, and the likelihood of a major war with the Soviets in the North Atlantic now appears very low. Given the Navy's declining force structure, the impending deactivation of the battleship Iowa, and the reduced likelihood of a conflict against Soviet naval forces in the North Atlantic, is the rationale for the new naval station at Staten Island still valid? Please comment on how high a priority this home port is for you as Commander-in-Chief of Atlantic naval forces.

Answer: The requirement for Naval Station Staten Island as a strategic homeport providing important support for Atlantic Fleet forces remains valid. This new station which is now nearly fully paid for will be one of our most modern activities and will help to replace existing facilities that are outdated and beyond their useful life.

Strategic homeporting principles are: to disperse forces into warfighting battle group configurations; to better utilize existing private sector industrial facilities; to use diverse geographical locations which permit us to train and operate in a variety of environments; and to reduce transit times to operating areas.

In selecting the northeast homeport site, many factors such as population, housing, economics, ecology, land use, transportation, energy, and quality of life were evaluated. Staten Island was selected as the preferred site.

With new facilities nearing completion, we have announced a homeport shift for USS NORMANDY from Norfolk to Staten Island arriving in August 1990. The recent decision to decommission USS IOWA creates a void at this strategic homeport. Numerous replacement alternatives are being evaluated, including transfer of Naval Reserve Force ships to that location since there is a high concentration of selected Navy Reserve personnel in the northeast area. Expansion of homeports is most advantageous to our Naval Reserve programs as more homeports mean greater access to members of the civilian population who may desire a career in the reserves.

QUESTIONS SUBMITTED BY SENATOR BUMPERS

TECHNOLOGICAL ADVANCES

Question: In your statement you say that "new technological advances will be required to maintain our deterrent with smaller forces." What are some of the technological advances you are talking about?

Answer: In the coming decade, even greater importance will be attached to our ability to develop and exploit advanced technologies for many applications, including new, technologically-advanced weapon systems, satellites and information processing for C3I. We have held a great advantage over the years from our technological edge. This will be more difficult to maintain to the extent current trends continue. Technological advances would include the SSN-21 which is absolutely essential to counter the modern Soviet attack submarine force. Also included in my previously submitted priorities listing were ASW detection and tracking systems plus ASW standoff weapons systems. Other priority modernization concerns are the DDG-51 program, A-12, AMRAAM and AAAM missiles, target recognition/discrimination, MK-50 torpedo/MK-48 ADCAP and the TRIDENT program.

OVER-THE-HORIZON TARGETING

Question: Are you satisfied with the ability of the battle group commander to track and target over-the-horizon air and sea threats? If not, what programs are particularly important to remedy shortfalls in his capability?

Answer: Over-the-horizon targeting is one of the most demanding aspects of modern naval warfare. To date, the capabilities of our weapons systems such as Harpoon and Tomahawk (TASM) remain somewhat limited by our ability to target them to maximum range. To extend our firepower to the limits of these systems, we must continue to develop key programs such as Combat DF, TADIXS-B/TACINTEL II and Battle Group Passive Horizon Extension System that provide "eyes and ears" beyond the horizon.

SOVIET AIRCRAFT CARRIER

Question: In the past we have been warned about the building of new Soviet aircraft carriers, only to later be told quietly that they are to be equipped with Forger VTOL aircraft. When do we believe that the Soviets will deploy a true conventional take-off and landing carrier?

Answer: The Soviets have already successfully conducted carrier takeoffs and landings by conventional-takeoff-and-landing (CTOL) aircraft using special versions of the SU-27 FLANKER, the MIG-29 FULCRUM, and the SU-25 FROGFOOT. These takeoffs and landings were conducted from the new Soviet carrier, the TBILISI, while at sea.

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QUESTIONS SUBMITTED BY SENATOR SPECTER

CARRIERS

Question: How many aircraft carriers are currently assigned to the Atlantic Command? What is the mix of nuclear powered and non-nuclear powered carriers? What are the names of the carriers?

Answer: Currently ten carriers are assigned to or under the operational control of the Atlantic Fleet. The nuclear powered carriers are the USS ROOSEVELT, USS EISENHOWER, USS LINCOLN and the USS ENTERPRISE. Conventional carriers are the USS FORRESTAL, USS SARATOGA, USS KITTY HAWK, USS AMERICA, USS KENNEDY and the USS CONSTELLATION~~. The~~ USS LINCOLN will be transferred to the Pacific in 1991 when she is fully trained for deployment (she is now undergoing shake down training, which takes about one year). USS KITTY HAWK is undergoing SLEP and not a deployable asset. ENTERPRISE has recently deployed to LANTCOM in order to undergo refueling and overhaul at Newport News. CONSTELLATION is in LANTCOM waters enroute to SLEP in Philadelphia.

FUEL LINES OF SUPPLY

Question: Considering the proximity of Atlantic Command's areas of responsibility to both the U.S. mainland and Western Europe, are the lines of supply, specifically concerning the supply of fuel, suitable to allow the Atlantic Command carrier mission to be successfully accomplished using non-nuclear carriers?

Answer: Yes, stocks of fuel maintained on the East Coast of the U.S. and in the Northern Atlantic area can meet the fuel requirements of our conventionally powered carrier force, utilizing assigned resupply ships supplemented by additional Military Sealift Command (MSC) tankers.

U.S. TRANSPORTATION COMMAND

STATEMENT OF GEN. HANSFORD T. JOHNSON, USAF, COMMANDER IN CHIEF, U.S. TRANSPORTATION COMMAND

INTRODUCTORY REMARKS OF SENATOR INOUYE

Senator INOUYE. The committee will now turn its attention to the U.S. Transportation Command. Gen. Hansford T. Johnson, Commander in Chief of the U.S. Transportation Command, will present testimony on U.S. air and sealift requirements, as well as his prepositioning needs around the world.

General, it is a pleasure to have you with us. We have received your prepared statement. It will be made part of the record and you may proceed as you wish, sir.

General JOHNSON. Sir, it is a pleasure to visit with you and to discuss mobility from not only a defense standpoint but also a national security standpoint.

Our Nation, as we all are aware, is an island nation. The oceans in our early history protected us. The oceans now are somewhat of an obstacle to our forward defense around the world. We are a maritime nation, but we have not kept a strong maritime industry over the years.

As we withdraw forces from around the world, we become more dependent on our mobility assets. We also agree that we do not want a hollow force. A hollow force is normally defined as one that is under strength in people, equipment, and training, but also if you have well-trained, well-equipped forces in this country and do not have the mobility to move them to where they are needed we indeed would have a hollow force.

Our job is to project those forces to where they are needed. The U.S. Transportation Command has many challenges for the 1990's. In the past, we have focused on Europe and the Soviet Union. As we proceed, we have to look at the entire world and our global responsibilities around the world.

During the 40 years of peace in Europe, we have had more than 90 conflicts which claimed over 16 million lives. The Third World countries are increasing in their sophisticated equipment. The United States is unlikely to be able to avoid future involvement in strife around the world. The threats may be smaller in scope, but they continue to challenge our ability to respond, especially from a mobility standpoint.

The U.S. Transportation Command must be able to provide our Nation with a responsive, efficient force that can move our Armed Forces anywhere in the world whenever they are needed. The Transportation Command is dependent not only on Active duty forces and Reserve forces, but also very heavily on the commercial sector. I believe this is a very good bargain for our taxpayers and is the way to go from an American standpoint.

FOUR KEY ISSUES

I would like to address four key issues—our people, our maritime industry, airlift and, finally, command and control.

Our most important asset in our Nation, and certainly in my command, is not our equipment but our people. In 1973, we as a nation chose to have an all-volunteer force. At that time we made a commitment to our people and in turn our people made a commitment to our Nation. That commitment was to ensure comparable pay, quality of life, and job security. And we believe we ought to keep that commitment.

MARITIME INDUSTRY

Moving on to the maritime industry, I believe that our maritime industry needs to be revived, enlivened. The President made a step forward last year when he signed the national security sealift policy. That is again a step in the right direction, but we have much to do to implement that policy. There are many laws and regulations that have become outdated and counterproductive over the years. When they were put into place, there was a reason, but now they have in many cases become counterproductive.

Our maritime assets are extremely important not only to our Nation from an economic and political standpoint, but also from a defense standpoint. We carry the largest portion of our equipment and sustainment on sealift, but we must have a balanced force. We also must have an airlift force that provides a highly flexible, fast, and global deterrent, as well as being able to react to situations around the world.

JUST CAUSE OPERATION

We are very proud of our role and my role as Commander of the Transportation Command as well as the Military Airlift Command in Just Cause. We moved, within 36 hours, 9,500 soldiers, shortly thereafter another 2,500. We participated in the largest night drop since the invasion at Normandy on D-Day. Our ability to quickly react to a deteriorating situation capitalized on surprise and arrived with overwhelming force and was a key to our success.

But at the same time, we have to remember that the realities are that Panama was closer to Miami than New York is to Miami. We had a secure base. We had 12,000 soldiers, sailors, and airmen in place before we began. So to draw the conclusion that we could do a situation like that 7,000 miles away would be incorrect.

AIRLIFT FLEET

Our airlift fleet is aging. Our C–141 is built with 1950's and 1960's technology. It was not originally built for refueling or for low level. We find that we are flying in these environments more and more and the aircraft are wearing out more quickly than was envisioned.

The C–17 is the answer to our Nation's airlift problems. It provides outsize capability of a C–5 as well as austere operating capability of the C–130. It is long-legged and can operate at much lower cost per ton-mile. The first prototype of the C–17 is under construction. The wing has been joined to the fuselage. It is proceeding well. There are still a few challenges, but the solutions are well in hand.

COMMAND AND CONTROL OF ASSETS

The last item I would like to talk about is the need to command and control our transportation assets. Back in 1978 there was an exercise called Nifty Nugget that looked at our ability as a nation to mobilize. We found out we were severely lacking not only in resource but, more importantly, on the ability to command and control those resources. Last fall we had a repeat of Nifty Nugget. It was called Proud Eagle, and this time we were able to command and control our transportation assets to mobilize and deploy the forces.

To do this, we have underway a global transportation network that provides the computers to allow us to do the command and control. It allows us to leave the stubby pencil era and move into the 21st century.

In closing, the protection of our vital interests—indeed, our economic and political well-being—can be assured only if we maintain a strong, responsive, flexible defense transportation system. It is a great honor today to be with you, Mr. Chairman, and to answer your questions.

[The statement follows:]

Statement of Gen. Hansford T. Johnson

INTRODUCTION

Mr. Chairman and distinguished members of the committee, I appreciate this opportunity to appear before you to discuss an issue of increasing military importance in our rapidly changing world: Mobility.

The United States enters the decade of the 1990's facing revolutionary changes in international geopolitics. The remarkable events sweeping Central Europe are a clear victory for Western postwar policy and offer unprecedented opportunities for Soviet Bloc nations to enter an era of self-determination. As with all change however, these events portend a period of uncertainty and significant instability. Events in Central Europe notwithstanding, nations today are still at odds over ideology, values, and economic interests. The United States will best be prepared to prevent military adventurism in Europe and around the world only if we maintain a credible deterrent posture, made possible through a strong alliance system and global military capabilities. Strategic mobility lies at the heart of a credible deterrent force, for without an adequate ability to project our forces, there is no conventional deterrent. This basic tenet was ably demonstrated during the recent operation in Panama, JUST CAUSE. Important to the success of that operation was this country's ability to rapidly deploy diverse forces to the right place at the right time. The orchestration of that effort relied heavily on an integrated, joint approach to planning and execution, and strategic lift translated success on paper to success on the battlefield. The story might have been quite different if this operation had not been supported by highly trained and well led active and reserve component forces who were ready, at a moment's notice, with modern well maintained organic equipment, to defend our national interests. We have learned the lessons of the past well. The investment this nation has made over the past ten years in developing a flexible, responsive military force is paying off. We must never go back to the hollow defense of the late seventies.

MISSION

It is my responsibility as Commander in Chief of the United States Transportation Command to provide all theater CINCs with the global air, land, and sea transportation they need to maintain a strong deterrent posture and protect U.S. interests worldwide. The United States Transportation Command is responsible for the operation of the three primary transportation modes, the transportation aspects of worldwide mobility planning and refinement, administration of the joint deployment system and the integration of the information systems which serve the mobility community.

ORGANIZATION

To accomplish our mission, USTRANSCOM is comprised of a small headquarters staff and three component commands: Military Airlift Command (MAC), Military Sealift Command (MSC) and Military Traffic Management Command (MTMC). The Military Airlift Command, the largest of the components, is responsible for all global airlift operations. MAC has nearly 90,000 active duty military and civilian personnel. When fully mobilized, MAC would gain another 27,000 Air National Guard and 48,000 Air Force Reserve personnel.

The Military Sealift Command provides common-user shipping for DOD and has 7,000 active duty military and civilian personnel, as well as over 2,200 Merchant Mariners under contract for a total of over 9,200 personnel in peacetime. When fully mobilized, MSC would gain an additional 1,700 men and women from Reserve units.

The Military Traffic Management Command manages all common-user ports, intermodal movements and CONUS land transportation. MTMC has 4,000 military and civilian personnel in peacetime and when fully mobilized, would gain an additional 1,921 Reserve personnel. In total, the USTRANSCOM organization consists of over 103,000 men and women during peacetime, with mobilization adding approximately 78,000 from the Reserves and National Guard.

USTRANSCOM also relies heavily on the civilian transportation industry. The Civil Reserve Air Fleet now provides more than 50 percent of the cargo and passenger aircraft available during a national emergency. U.S. flagged merchant ships provide the majority of our total sealift capability with the remainder provided by government owned ships. All our sealift ships, both civilian and government owned, would be operated by U.S. civilian merchant mariners. These programs and DOD's virtual 100 percent reliance on commercial rail and motor transportation combine to provide over 85 percent of this nation's total lift capability. Because they are such an important part of our total force, USTRANSCOM remains vitally interested in the health of the civil transportation industry.

THE THREAT

The efforts of all the men and women of USTRANSCOM are directed toward supporting our national objectives. While the remarkable events in Central Europe have focused this nation's attention on Europe and the Soviet Union, we must not forget our worldwide responsibilities. We live in an uncertain, changing world. We must not overreact to an unknown future by dismantling the defense strategy which is in large part responsible for the positive events unfolding today. Although the likelihood of direct military confrontation with the USSR appears greatly reduced, Soviet combat capability remains formidable—and the Soviet Union is only one part of the worldwide threat. As the Cold War draws to a close, the world is moving toward a potentially less stable geopolitical environment. According to a Commission on Integrated Long-Term Strategy report published in January 1988, those countries in Asia, the Middle East, Africa, Latin America, and the Eastern Caribbean which make up the Third World have been involved in more than 30 limited conventional and 60 unconventional conflicts over the past 40 years. In addition to the estimated 16 million lives lost in such hostilities, we can add the undetermined toll exacted by terrorism and other forms of political violence. It is improbable that the United States, in pursuit of its national objectives, will escape involvement in future strife. We must, therefore, maintain the capability to strike swiftly, at the time and place of our choosing, with overwhelming force, in order to minimize our losses and ensure success. These emerging threats will likely be smaller in scope than those represented by the Soviet Union, but will pose tremendous challenges to our ability to respond. Such threats may develop quickly with little warning, compressing available action time. They will likely develop in areas where we have little infrastructure, at great distances from the continental United States. All these factors will impact on USTRANSC0M and our ability to provide timely force projection.Withdrawal from overseas theaters in response to the changing threat in Europe will require an increasingly flexible, balanced, and responsive mobility structure to meet new challenges.

THE STRATEGY

To counter these threats, our national military strategy has at its roots three fundamental components: the maintenance of a credible deterrent through forward presence; the ability to ensure our access to strategic materials and world markets; and the need to meet allied commitments. This strategy has served us well for nearly half a century. I agree with those who urge prudence in modifying a system that has been so successful.

OUR OBJECTIVE

USTRANSCOM's objective in the furtherance of this strategy, put succinctly, is to support the strategic lift requirements of the theater CINCs. Those requirements are articulated through the process of building and refining operations plans. The success of those plans, the ability to fight and win, is in part dependent on our ability to project U.S. forces to any theater of conflict. A shortfall strategic mobility assets equates reduced combat capability deterrent posture. We must maintain the ability, through adequate resources and training, to meet our national security requirements.

OUR CAPABILITIES

Ultimately, it is not equipment which will preserve our freedom—it is the individual will, spirit and innovation of our people. In his former role as commander of the largest command in the DOD, Forces Command, the Chairman of the Joint Chiefs of Staff, General Colin Powell, stated, "It is my view that programs necessary to maintain and support quality soldiers have to remain, above all, our top priority." I heartily support that position.

In this age of high technology and ever increasing weapon system sophistication, the American service member remains the cornerstone of a viable military force. Modern technological advances have resulted in lower manpower requirements but, at the same time, have led to the need for a higher quality individual to operate and maintain new systems. This quality of individual can be found throughout the United States Transportation Command; they are the foundation of our war-fighting and readiness capability.

Today the theater CINC's requirements for manpower, materiel and the strategic lift to move them are being reevaluated. Fiscal realities have forced us to apportion available assets to ensure we maintain a balanced lift capability, and will continue to do so. With the formation of USTRANSCOM, there is now a unified command with direct responsibility for ensuring the theater CINC's plans are executable from a transportation perspective. From the very beginning, as a theater CINC develops a concept, USTRANSCOM is there to advise on its transportation feasibility. As the concept evolves into an actual plan, USTRANSCOM provides advice as forces are assigned and strategic lift requirements are quantified. Thereafter, if the determination is made to execute a plan, USTRANSCOM will provide traffic management expertise to ensure forces and equipment are moved in a timely manner, consistent with available resources, from their home station through selected ports of embarkation and delivered to the supported CINC.

To carry out their missions, our components rely on the readiness of three distinct elements: active duty personnel, reserve forces and the civil sector. All three, in balance, are essential to the performance of the transportation mission. The readiness of these elements is directly linked to the daily activity level within the transportation system. The tempo of MAC's flying operations; MSC's steaming operations; and MTMC's air, truck, and terminal operations are directly dependent on service transportation funding, since it is those funds which pay for our operations. Every peacetime DOD dollar spent on transportation hones our ability to project the force. When service transportation budgets are reduced, the result is a real loss of military transportation system readiness.

OPERATIONAL CHALLENGES

Sealift.—In any major overseas deployment, sealift will deliver approximately 95 percent of all dry cargo and 99 percent of all petroleum products. The sheer magnitude of the capability represented by modern oceangoing vessels makes strategic sealift a critical link in strategic mobility. Today the United States has fewer than 400 dry cargo ships in its national pool. Our unilateral capability continues to decline despite significant accomplishments in government and maritime industry cooperation, and the signing of the National Security Sealift Policy. The continued erosion of our sealift capability is a national problem which poses a significant threat to the security of this country. Without an adequate sealift capability, unilateral military actions may not be feasible, while alliance actions and a credible deterrent posture would be weakened. Although mobility studies and expert opinion vary on the actual sealift requirement, and on our capability to fulfill that requirement, the consensus invariably points to one conclusion—our maritime fleet and its supporting industrial base are steadily declining.

Over the last year, a great deal has been accomplished in an effort to reverse the decline of the U.S. maritime industry. The National Security Sealift Policy has been signed by the President. This policy is providing the focus for a coalition of leadership in the Department of Defense and civilian industry who are addressing this decline. Industry and labor have never been more willing to work together to achieve a common goal.

The National Security Sealift Policy enacted last October establishes the foundation upon which we must build a comprehensive program for revitalizing the maritime industry. The Department of Transportation and the Department of Defense are currently working on just such a program. The National Security Sealift Policy establishes our government's goal to ensure adequate sealift resources are available to meet national economic and security requirements. I fully support this theme.

Even though our defense policy relies on contributions of both U.S.-owned and allied shipping resources to meet strategic commitments, we must be prepared to respond quickly and unilaterally to security threats in geographic areas not covered by alliances, and to threats which fall below the requirement for full mobilization. Examples include operation GOLDEN PHEASANT, 1988's movement of forces to Honduras, and operation NIMROD DANCER, the movement of forces in and out of Panama in the wake of election violence.

The 8 fast sealift ships operated by MSC, which are commercial container ships modified in a roll on/roll off configuration, and the Ready Reserve Force (RRF) provide the immediate assets available to meet unilateral and surge shipping requirements.

The RRF is currently composed of 95 militarily useful and specialized vessels maintained in a 5, 10, and 20 day activation status. The fleet is programmed to grow to 105 ships in fiscal year 1991. The growth and modernization of this fleet was jeopardized when Congress cut 63 percent from the fiscal year 1990 RRF budget request. Budget authority for this important force in reserve has recently been reclassified as a defense related item. I urge your full support for this program.

The National Defense Reserve Fleet is a source of sustainment shipping and attrition fillers. However, over half of this fleet is comprised of World War II vintage vessels, primarily Victory class ships, whose condition continues to erode while in storage. At the same time, we are concerned about predictions of a decline in the number of militarily useful ships in the Effective U.S. Controlled Fleet. This fleet is susceptible to many of the same economic pressures affecting the U.S. flag fleet. Current information indicates that some ship owners are selling out to their foreign partners, further reducing our available sealift assets. All of these trends will result in our continued reliance on NATO allies to meet rapid reinforcement plans for Europe, and a decreased ability to meet unilateral sealift requirements.

Solutions to the decline of our merchant marine are elusive and complex. They begin with our acknowledgment, embodied in the National Security Sealift Policy, that sealift is essential to our national security and economic freedom. I urge your continued support of this important capability.

AIRLIFT

Strategic airlift is the single element of mobility which provides this nation with the ability to project force in the critically important early days of a conflict. When rapid reinforcement and timely arrival of supplies are absolutely necessary, there is no substitute for airlift. MAC's current airlift capability combines active duty forces; Air Force Reserve; Air National Guard; and Civil Reserve Air Fleet personnel, aircraft and equipment into a national airlift force. Our nation calls upon this force in varying degrees to meet peacetime, contingency, or wartime requirements.

The workhorse of our organic strategic airlift capability is the C-141 fleet which last year flew nearly 271,000 hours supporting such diverse missions as combat airdrops in operation JUST CAUSE and humanitarian airlift of supplies to the Caribbean after hurricane Hugo and to earthquake victims in Soviet Armenia. On any given day 70 to 75 percent of the fleet is committed to airborne operations. Originally entering the inventory in 1963, these airlifters are rapidly reaching the end of their service life. Hastening the aging process of these aircraft was the need for an aerial refueling capability and an increased use in the low altitude airdrop role. Both of these missions have resulted in more rapid fatiguing of the C-141 airframe. In an effort to limit the impact of this trend, MAC has been forced to eliminate some training requirements in an effort to prolong the C-141 structural life, thus maintaining a viable strategic airlift force. However, these measures are temporary at best and will ultimately reduce our combat effectiveness through a shortage of specially trained crews. The wing cracks must be fixed! Currently there are several options being studied which will not only fix the cracks but upgrade the C-141 as well, extending the life of the aircraft. Though some may find service life extension an attractive option, in my opinion it is not cost effective and does not address the real need for fleet modernization. These measures represent, at best, a short-term effort which will not adequately bridge the gap between our current capability and the fielding of the next generation airlifter. The airlifter of the future will need to be more flexible, able to operate in the austere environment of short, semi-improved fields, delivering cargo directly to the battle in an increasingly complex threat environment. The C-17 is that airlifter. The multi-role abilities of the C-17 will allow it to swing from its primary role of strategic airlift to the theater airlift role. This modern airlifter will be capable of moving large quantities of munitions, fuel and outsized cargo directly to forward areas. This additional capability will be realized with lower manpower requirements and dramatically reduced operation and support costs when compared to our current fleet. The C-17 will form the cornerstone of our future strategic airlift capability.

As the worldwide threat evolves and our forces are restructured to meet that threat, I firmly believe the need for more responsive, flexible lift will play an expanded role in U.S. military strategy. Congressional support for the C-17 has been strong in the past. I urge you to continue that support.

PREPOSITIONING

Although not under USTRANSCOM's control, we also support the Navy's Afloat Prepositioning Fleet, the Marine Corps Maritime Prepositioning Ships, and the Army's Prepositioning of Materiel Configured to Unit Sets (POMCUS) program. All of these initiatives reduce our requirement for lift. Every ton of materiel prepositioned in theater is one less ton we have to move to that theater with our limited strategic lift capability. Prepositioning is not, however, a panacea to make up for limited mobility assets. We must ensure our prepositioning and airlift forces remain in balance. Both our land based and sea based prepositioning programs require airlift to transport the personnel and additional equipment needed for units to become operational. Our ability to rapidly deploy forces worldwide, or to rapidly return forces to Europe, is significantly enhanced by balanced airlift and prepositioning programs.

MOBILITY MANAGEMENT

Near term improvements in mobility will not likely come from bigger, faster vehicles but from improvements in our ability to manage the assets we have. USTRANSCOM is exploiting this reality by developing an integrated command and control network.

Command, Control, Communications and Computer (C4) Systems are vital to the success of this command. All the lift capability in the world will not solve our strategic mobility problems if we are unable to direct and control it. Proper command and control allows us to tie together diverse lift capabilities to better support the theater CINCs.

Rapid advances in communication and computer system technology have produced an explosion of information capability for the commercial transportation industry. Currently, the industry is focusing on flexible sharing of information for intermodal management and tracking of vehicles and cargo. USTRANSCOM is drawing upon this technology, integrating it within the military transportation system.

The command has developed its C4 System Master Plan which provides the direction for development and use of C4 systems. This plan has already identified a baseline of C4 systems that provide functional support to independent groups of users. To hold costs to a minimum, we are capitalizing on these existing systems to provide a "network of systems" known as the Global Transportation Network (GTN). This network will allow users to access needed transportation information from existing private sector and DOD data bases. We are now testing this concept in the Pacific and European theaters with a GTN prototype using commercial technologies. An operational prototype will be fielded by the end of fiscal year 1990.

Currently USTRANSCOM's ability to support peacetime contingency operations is hindered by a lack of automated tools to develop closure estimates and closure profiles for the theater CINCs. The Joint Operation Planning and Execution System (JOPES) will fill this critical gap, moving us out of the stubby pencil mode, dramatically improving our ability to plan and execute contingency operations. When final operational capability is achieved, the GTN will provide accurate and timely information to JOPES; which plays a critical role in the command and control of mobilization, deployment, employment and sustainment of forces. Your continued support of our C4 system programs will ensure these sorely needed capabilities will be fielded.

GOLDWATER-NICHOLS

The committee has requested I address the implementation of the Goldwater-Nichols Reorganization Act. Although USTRANSCOM was not formed as a result of this legislation, I have benefited as a supporting CINC. My involvement in the Defense Planning and Resources Board process gives me the needed forum to voice concerns and state requirements. As a result of this process, there are currently no deficiencies in my ability to provide support for the theater CINCs which are not being addressed by the Services. The DOD reorganization has also resulted in an improvement in the quality of officer seeking a joint duty assignment to my headquarters. I believe Goldwater-Nichols is having a positive impact on how we do business.

CONCLUSION

Mr. Chairman, thank you once again for the opportunity to provide the committee my views on the United States Transportation Command's contribution to mobility and rapid reinforcement. I believe our current and future military strategies will require additional, more flexible mobility assets to ensure their success. This nation stands to benefit greatly from the integrated approach to transportation represented by USTRANSCOM. In two short years, this Command has forged new, stronger bonds between the members of the joint deployment community. Through this robust new relationship, we have instituted programs and procedures which markedly increase the effectiveness and responsiveness of the Joint Deployment System. The recent PROUD EAGLE 90 worldwide mobilization exercise demonstrated unequivocally that the coalition, now anchored by USTRANSCOM, of the three transportation operating agencies, the CINCs, the Services, the Joint Staff, commercial industry and federal agencies, has greatly improved this nation's ability to mobilize for war.

As we look to the future, we see continued integration of the functions that comprise our military transportation system. We are working to provide the theater CINCs and Services with a single point of contact for all their transportation needs, peace to war. The synergistic effects of a fully integrated transportation system would be truly impressive. Such an organization could provide real origin to destination visibility over men and materiel moving within the system, minimizing the inherent turbulence when transitioning from peace to contingency to war. The increased economic leverage, lower overhead and simplified planning and execution of transportation requirements will help ensure this nation full productivity from every defense dollar spent on transportation.

The goal of USTRANSCOM is to support this nation's credible deterrent posture with a transportation system capable of projecting our forces anywhere, anytime. With the support of the Administration and you, the members of Congress, we will maintain the flexible, balanced and responsive mobility system so critical to achieving our national objectives.

Senator INOUYE. Thank you very much, General.

First, I would like to make an observation and ask you whether my observation is accurate or not.

U.S. CONTROL FLEET

In your prepared statement you have indicated that actions have been taken in the past year to reverse the decline in the U.S. maritime industry, and you state that much has been accomplished because we have finally got a national security sealift policy.

However, your statement also mentions that an expected decline in the effective U.S. control fleet may be coming about in the near future, and you also question the utility of the national defense reserve fleet.

Am I correct to conclude that, notwithstanding your statement, U.S. capability has probably declined because of ship retirements?

General JOHNSON. No, sir. Over the past year, we have not seen a large number of ship retirements. We do have concern over the effective U.S. control ships. Those are U.S.-owned but under a flag of convenience. The incentive for having effective U.S. control shipping had decreased over the last couple of years because of tax law changes, and I believe that the fleet is less reliable and will decrease even further than it is today.

In that fleet we have 138 militarily useful ships, but only 34 of those are dry cargo; 91 are petroleum and 13 are passenger-type ships. So I believe this fleet is decreasing.

NATIONAL DEFENSE RESERVE FLEET

Now the national defense reserve fleet, those are the ships that we would activate from 31 to 90 days after the conflict begins. There are a total of 133 of those ships. Seventy-seven of those are still of the World War II Victory ship class, and all of these ships are under the control of the Department of Transportation, the Maritime Administration in particular. It is our understanding that they plan to phase out some of those ships, and we concur with their direction in phasing out part of this fleet, because it is very old. Ninety-seven percent of those ships are steam powered rather than the modern diesel propulsion plants. We would have a difficult time manning the ships with qualified engineers.

Senator INOUYE. From what you have just said, I would have to conclude that we were better off last year than we are this year.

NATIONAL SECURITY SEALIFT POLICY

General JOHNSON. The declining trend has been arrested, but I will not argue in specific numbers. One way that we are better off this year is that we have a national security sealift policy which has been signed by the President. It is being implemented. There is a policy coordinating subcommittee working implementation of this sealift policy.

This policy has to do with ensuring adequate sealift in times of crisis and war. It says we must have a stand-alone capability in areas not covered by treaty. As you know, we have several hundreds of ships offered by Europe. Four hundred is their commitment, which are dry cargo ships. Korea has 26 ships that are offered to us in time of conflict. So this policy says we should have a stand-alone capability.

The policy says we need to meet our sealift requirement with U.S.-flagged ships, with U.S. crews. We should minimize use of reserve ships during peacetime. That means we should only use the reserve fleet to work JCS exercises. When we do an exercise, we will often activate a ship in the Ready Reserve Force fleet, put it into action, use it, and return it to the Reserve.

We need militarily useful ships. Any new ships built in this country should have defense features built in to make them useful. We need to protect U.S. sealift against foreign incursion and loss of maritime competitiveness, to make our sealift support program more effective, and, finally, to support advanced technology.

Again, this is the sealift policy, but neither the administration nor the Congress has been able to implement all aspects of this policy. But it is a step in the right direction, sir.

Senator INOUYE. We provided about $600 million last year hoping that you would utilize that to implement some of the policy features. But we notice that amount is being deferred. Is that the request of your command?

General JOHNSON. No, sir. These funds were deferred by the Secretary of Defense for several reasons. We do not yet know how to spend those funds wisely. Congress asked the Secretary of Defense to report back to Congress on how we would build ships that would be commercially viable and militarily useful. The administration is putting together the response. It will look at a couple of alternatives.

One would be to build new ships and place them in reserve status. The other route would be to put defense features into new ships which would be built for commercial operation.

As you know, Mr. Chairman, we have not had a commercial ship being built in a U.S. shipyard since 1987. The Matson Lines have recently let a contract for one ship to be built by NASSCO in San Diego.

Of course, that will be U.S. built, U.S. flagged and U.S. crewed.

Senator INOUYE. I am well aware that this Command is less than 3 years old and you have been at the helm now for less than a year. So we do not expect any miracles here. But I note that the national security sealift policy has, as one of its major features, a reliance upon the fleets of our allies; is that correct?

General JOHNSON. Yes, sir; it talks about having a stand-alone capability in areas not covered by treaties. In other words, if we are going to go to Europe, we can count on the 400 ships from NATO. If we are going to go to Korea, we can count on the 26 Korean ships. But it says we must have a stand-alone outside these treaty areas.

Senator INOUYE. What would that number be, the stand-alone number?

General JOHNSON. That answer is scenario dependent. When we look at sealift, it is very difficult to come up with the exact number you need, because it depends upon how quickly we want to close the force, the scenario, the threat, and the geographical area.

SEALIFT CAPABILITIES

Senator **Inouye**. Some have suggested that with the dramatic changes in the military picture in Europe that we should increase our sealift capabilities to other areas, to Third World areas where you may have smaller areas of conflict. Do we have a sealift capability for that?

General **Johnson**. Yes, sir; we have some capability. We do not have immense capability. Several years ago we purchased a total of eight SL–7's. They are fast sealift ships. They were container ships bought from the SeaLand Co. These ships were built before the petroleum prices went up, and were inefficient to operate in the commercial sector when the prices went up. We bought those ships and we converted them to primarily roll-on/roll-off ships, and these eight ships can carry the equipment for a mechanized division.

Those are available. We use those. We used them in winter exercise Reforger in Europe. We are using them now in the spring exercise Team Spirit in Korea. These ships work very well. We also used one of them when we reinforced Panama last summer. We took down a battalion of mechanized infantry on one of these ships.

These ships are in various ports in the gulf and the east coast, and they have a requirement to be underway in 96 hours. When we used the *Bellatrix* to take the armored personnel carriers to Panama, we got the ship underway in 51 hours, as opposed to the allotted 96. So those ships are used very, very well in exercises and, obviously, in contingencies.

AIRLIFT CAPABILITY

Senator **Inouye**. General, I have visited the plant manufacturing the C–17 and I am personally very impressed by its capabilities. But I am also aware that the primary justification for the acquisition of the 17 has been NATO-Europe. With the dramatic changes in Europe, do we need the same number? Or has the mission changed?

General **Johnson**. We have looked, and the Joint Chiefs of Staff are looking now, at scenarios around the world other than Europe to see what the requirement is. You will recall, Mr. Chairman, that several years ago we came up with a requirement for strategic airlift, intertheater airlift, of around 66 million ton-miles. That always was a goal, as opposed to the total requirement.

We are looking at returning forces to Europe, but also projecting forces in the eastern Mediterranean, into Southwest Asia, and also into the Pacific, and other hot spots, and we are evaluating the requirements to project the forces.

Every excursion we have run to date has had the requirement of 60 million ton-miles per day or higher. I believe that that requirement will continue to be at the level of 60 to 66 million ton-miles per day or higher.

When we look at the balance between airlift and sealift, General Galvin says, and it is true for around the world, although the days will be different, in the first 10 to 15 days the force is closed by air; then the fast sealift starts coming in, and after 20 days the normal sealift lines of communications will take over and carry the cargo.

If you go to the Pacific, you have to add 5 or 6 days to that, and the same order applies.

Senator INOUYE. How much would it cost to purchase a fleet capable to move a division of equipment in 10 days to Europe?

General JOHNSON. As I mentioned earlier, the SL-7 fleet, the eight ships, can move a division to Europe in——

Senator INOUYE. How much would it cost to acquire those ships today?

General JOHNSON. About $350 million apiece. As you know, the ship that is being built for the Matson Lines costs $129 million. Our problem is that we do not have good data on what it costs to build ships in U.S. shipyards now. The same ship would cost $50 million in a Korean shipyard. I do not know exactly what it would be in a German shipyard.

Our cost of labor in our country is now about the same as it is in Europe, certainly not Korea and so forth. But the problem is we have not kept our yards up to date. We have gone down from 29 yards to 6 major yards, and perhaps going down to 4 in the major private yards a little later on.

Senator INOUYE. So that would be at the highest about $3 billion?

General JOHNSON. I would think close to $4 billion, perhaps more than that. But we do not have a design to use.

Senator INOUYE. How many C-17's would it take to do the same job?

General JOHNSON. It is not feasible to draw a comparison between fast sealift and C-17's. C-17's can carry the fast cargo, but you could never realistically carry eight fast sealift loads of cargo on C-5's and C-17's. The massive amount of support equipment, it would just not be economical to take them by air.

The example that we sometimes look at is the Israeli war back in 1973. In that particular war, the airlift carried quite a load, and in fact kept Israel from losing the war. When the first ship arrived, it had cargo equal to what the airlift had carried before the cease fire. The war had ended 5 days before the ship arrived, so the airlift is vital in the first few days if you are going to stabilize the situation. Then we must have sealift to bring the heavy equipment and to bring the sustainment.

PREPOSITIONING

Now we can carry almost everything by air, but carrying one tank in a C-17, or perhaps two in a C-5, is not a very economical way to take tanks. We depend in Europe on prepositioning, and, as you well know, we have a large prepositioning stock in Europe. We also have three squadrons of Marine prepositioning ships around the world. Each of these squadrons—there are four or five ships—has the equipment for a Marine expeditionary brigade. We would have to close the people, the Marines, to operate the equipment and also the naval support element to offload the equipment.

We also have another 13 ships of prepositioned equipment belonging to the Army, Navy, and Air Force, primarily in Diego Garcia. So we depend upon prepositioned equipment a great deal from an air standpoint.

Senator **Inouye**. Would the increased warning time that we can anticipate now with the changes in the Warsaw Pact nations—am I correct to conclude from what you have said that it would be cheaper to go by sea than by air?

General **Johnson**. Yes; there is no question that it is cheaper to go by sea than by air. However, if we had done that in the Israeli situation, the war was over before we could use sealift. So we need both sealift and airlift for different reasons.

Senator **Inouye**. In that case, you did not have any warning time, but we have been told that in Europe you would have warning time.

General **Johnson**. Yes, sir. But we have to be careful about warning time, decision time, and reaction time. If we had a year's worth of warning, I dare say it would take a year minus a day, perhaps, to make a decision because we would not want to do anything provocative early on, and I suspect we would reach a period of indecision.

The important time is the reaction time, and that is the time after the decision is made, how quickly you can get something underway. In the Israeli situation, a decision was made in the late afternoon and the first aircraft departed at 7:35 p.m. eastern time that very same day

Warning time is not nearly as important as the actual response time. And that is the responsive time that we need. I concede that early posturing decisions, based on early indications, will give the military a greater response time.

Senator **Inouye**. Well, I have been asking these questions because in the budget we will be spending, if we approve it, $16.4 billion in the next 4 years to purchase 71 C–17's. But we have zero dollars for ships. And we thought it might be well that there were some little balance; $16.4 billion for aircraft, and maybe $600 million for ships.

General **Johnson**. Yes, sir; I do not argue with the $600 million. I told you my view on how we should spend that $600 million. I believe that, first of all, we have a national problem with the maritime industry, a national challenge, and a subset of that is a defense challenge. But I believe that a maritime nation needs a maritime industry as Americans, as the Department of Defense, we also need to have a call on that industry.

As I am sure you know, today we ship no military cargo in military ships other than during exercises. During Just Cause, we shipped out the captured equipment and ammunition in commercial bottoms. It is our national policy, and rightfully so, to use U.S.-flag shipping when we can, and we do not compete with commercial shipping with organic assets.

In the air it is a little different situation in that the commercial sector cannot provide the same type of air that our organic airplanes provide. So a direct comparison between sealift and airlift does not quite work because in the sealift area we depend in peacetime in essence 100 percent, not counting exercises. In wartime, we depend on the commercial sector for as much as 95 percent of our sealift. In essence all of that, save the reserve fleets and the eight ships I just described, are commercial and all are civilian-crewed.

And 99 percent of our petroleum goes by sea and virtually all of that is commercial.

So we are talking two different things. On the airlift side, most of our passengers will go by commercial air. About 28 percent of our cargo will go by commercial air. The remainder will go by Active and Reserve forces using organic air. So there is quite a difference between organic air and commercial ships, from my perspective, sir.

Senator INOUYE. In your response you have referred to the Israeli war a couple of times. I would like to add a footnote to that and, if I am wrong, I hope you will correct it for the record. I have been advised that in that conflict when we were requested for immediate replenishment of supplies by the Israelis, we looked to our fleet and we found that those ships under the effective American control were all out on the high seas, and, therefore, we called upon those American-owned ships under foreign registry for assistance.

But since the Saudis had sent the word out saying that if any of you carry cargo you would be blackballed, Panama and Liberia sent word out that their foreign registry ships will not get involved. And so we were faced with no ships whatsoever and the delay came about because we had to wait until one of those ships under our effective control became available. And that ship became available just before the end of the war. Is that correct?

General JOHNSON. Sir, I will have to provide that for the record. I cannot answer that. I know how quickly the air responded. I know how quickly the first ship arrived, but it takes time to marshall equipment, take it to the seaport, load it. How quickly a ship was available I cannot directly address, but I will provide for the record, sir.

[The information follows:]

There is no known instance in which an American controlled vessel was denied permission to carry cargo to the Middle East during the 1973 Arab-Israeli war for reasons of flag registry. Liberia drafted an Executive Order No. IV of 2 November 1973, but this order did not apply to vessels under effective control agreements. Liberian Executive Order No. IV never passed into law. Consequently, availability for American controlled ships was not in question. In addition, there was no official U.S. government order for the use of EUSC flag vessels. There was no adverse effect on the Arab-Israeli 1973 war because of this situation. Just as recently as 3 January 1990, Liberia proclaimed renewal and reaffirmation of full and continued support of the EUSC concept.

In November 1989, USTRANSCOM initiated a review of its functions, organization and role in the Defense Transportation System (DTS). The review is focused towards recommending improvements in the DTS to bring USTRANSCOM to full operational capability—peace and war. We have identified many problem areas including: USTRANSCOM's mission orientation, three separate single manager charters for transportation responsibility, traffic management execution, separate transportation industrial funds, transportation contracting procedures, the information management process, and USTRANSCOM's organizational structure.

I am convinced that USTRANSCOM must be involved in all transportation operations in order to minimize our transition turbulence from peace to contingency to war. It is my intent to develop a streamlined organization to improve operations and resource management. Although this effort crosses many traditional boundaries, I believe that the end result will be better wartime mobility management and execution as well as improved peacetime efficiencies.

Senator INOUYE. Thank you, sir.

Senator Cochran.

Senator COCHRAN. Mr. Chairman, thank you.

To use a phrase that may be too often used here in the Congress, I would like to be associated with the remarks of my distinguished chairman. But I would have asked some of the questions that the chairman asked about our sealift capability and I appreciate his going into the subject in such detail with you, General.

I do want to clarify for the record and for my own benefit the information that you gave us about the use of sealift in operation Just Cause. Did I understand you correctly to say that you did use U.S. commercial bottoms to put ammunition in place there?

General JOHNSON. No, sir; to retrograde the captured equipment.

Senator COCHRAN. What does that mean?

General JOHNSON. To bring back the captured equipment from the Panamanians, sir. We captured a lot of vehicles, weapons, ammunition, and so forth. We brought that home in commercial bottoms.

Senator COCHRAN. I see. To what extent were commercial ships used in operation Just Cause to either carry men or materiel to the area?

General JOHNSON. They were not used in operation Just Cause other than the normal resupply of Panama. In other words, none of the operation went in any type of sealift. The operation was executed too quickly to use sealift.

When we built up in Panama last summer, we did take a shipload of equipment from Fort Polk. It was a mechanized infantry battalion. We took this battalion on one of the FSS's—loaded at Beaumont, TX, and went down. It worked out very, very well.

Senator COCHRAN. Well, I appreciate having a chance to hear your testimony and I get the impression, which is a favorable one, that the administration is developing a policy with respect to sealift and that we might look forward to cooperation in the future with some specific actions to implement the policy. I think that would be in our national interest, and I hope we can find the dollars in the budget to get that done. Thank you very much.

Thank you, Mr. Chairman.

Senator INOUYE. Thank you very much, General.

ADDITIONAL COMMITTEE QUESTIONS

If we may, we would like to submit prepared questions for your consideration and response, sir.

General JOHNSON. Yes, sir.

Senator INOUYE. Thank you very much, sir.

[The following questions were not asked at the hearing but were submitted to the Department subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR INOUYE

New MAC Plan To Place Non-Flying Officers In Administrative Jobs

Question: General Johnson, I understand MAC has instituted a new plan to place non-flying MAC officers into jobs previously filled by rated aircrew members. Fliers will then be able to return to the cockpit while getting operations support from operations management officers. Has a cost savings analysis been done on this plan? If so, could you share the results with the Committee?

Answer: The plan you refer to has two facets in the Military Airlift Command. The first is a phased replacement of pilots and navigators in command and control positions within our command posts around the world. The second facet is the addition of an adjutant position within our larger flying squadrons. The latter represents a training ground for the former. The driving motivation for this plan was and is retention and utilization of rated officers, primarily our pilots. As you know, we are concerned about our rapidly declining pilot inventory. Our surveys of pilots leaving our ranks revealed that permanent change of station assignments to non-flying overseas command posts, particularly in the most active flying years of a pilot's career, were at or near the top of every list of "irritants." While we have not done a detailed cost-savings analysis on this plan, I would suggest that for each pilot replaced by an operations management specialist, we save all pilot training costs for that officer. I can tell you that for every C-5 pilot we retain, the savings are $7.5M we won't spend to replace him or her. Likewise, it costs us $3.3M to replace a C-141 pilot, $2.08M to replace a C-130 pilot, and $1.83M to replace a PAVE LOW helicopter pilot.

Question: Will special operations aircrews be covered under this plan? If not, why not?

Answer: Yes, special operations aircrews will be covered under this plan. They are integral with other MAC units.

Question: What prompted the decision to initiate this new plan?

Answer: The retention and proper utilization of rated officers, in particular, pilots.

Question: Will MAC be conducting studies to determine whether aircrew proficiency rises, declines or stays the same after they have been relieved of duties unrelated to flying?

Answer: We do not plan to conduct a special study for that purpose. As I'm sure you are aware, we have programs in place that continually monitor aircrew proficiency to insure we can safely perform our peacetime mission and effectively perform our wartime mission. We do not believe the plan to return our pilots and navigators to flying duties will have any effect on proficiency. Our training programs insure that sufficient levels of proficiency are maintained. Our plan will, however, permit us to gain a greater payback for the flight training we invest in each of the crew members that we have returned to the cockpit.

Sealift Technology

Question: General Johnson, last year we also appropriated $15 million for the first year of a two-year fast sealift technology R&D program. This program was outlined in a report provided to

Congress last year. We know how to spend this money, but these funds also were deferred. Doesn't this contradict your statement about needing to focus on sealift technology?

Answer: Funds were deferred from this R&D program to provide for other defense priorities. This deferral does not contradict my statement about focusing on sealift technology. Both my predecessor and I have made every effort to support R&D in this area. Deferral results in an unfortunate delay but does not change the need for R&D. I will continue to urge a national focus for sealift research and development.

Question: Does this mean you will drop out the major component of the requirement for 66 million ton miles--reinforcing NATO Europe in days--and you still have a requirement for 60-66 million ton miles?

Answer: The 66 MTM/D capability was a fiscally constrained airlift goal based on the findings of the 1981 Congressionally Mandated Mobility Study, which was the first study ever to take a comprehensive look at all aspects of our mobility triad; airlift, sealift, and prepositioning. The goal of 66 MTM/D represented a significant increase in airlift capacity although it did not meet the demands of even the smallest scenario used in the study. Our future reinforcement requirements are uncertain. The Major Aircraft Review is making the best estimate currently possible for European as well as non-European contingencies. I would not want to preempt the Secretary's prerogative to announce the conclusions of that review, but I have seen nothing in the review that would lead me to recommend an airlift goal below 66 MTM/D.

Question: Are these new requirements for simultaneous airlift -- which is an unlikely scenario?

Answer: No decision has yet been made as to the degree of simultaneous conflict the Department will need to plan for in the future. I would caution, however, that if we do have to reinforce NATO in some future crisis, there are likely to be simultaneous requirements for deployment to other parts of the world if only as a precaution against the spread of conflict.

Question: The Conventional Forces in Europe (CFE) Arms Control talks are trying to negotiate limits on prepositioned material as part of the troop reductions. The U.S. must balance these limits with the increased need to reinforce NATO if fewer U.S. troops are forward deployed. Are you concerned about these negotiations on your command's ability to do its job? What are those impacts? Are you being consulted?

Answer: Yes, I am being consulted on the CFE negotiations. It is not a forgone conclusion that CFE will increase reinforcement requirements to Europe. You must remember that the treaty will require greater reductions in the threat forces than NATO forces. We are working closely with the rest of the Department as the talks progress to ensure we will be able to meet future deployment requirements at the least cost. Just as it does today, the reinforcement requirement post CFE will require a balance among airlift, sealift, and prepositioning. Through careful planning we will be able to make the best use of our investment in mobility programs.

New Efficiency Procedures At MAC

Question: General Johnson, I understand that in recent months you have introduced several new programs intended to improve the efficiency of MAC operations. These include a maintenance reorganization, the expanded authority given to aircraft commanders, the Action Eagle program and the consolidation of inspection visits. Please describe the specific objectives of each of these programs and what prompted their initiation.

Answer: We have three separate efforts going on within MAC maintenance to streamline and enhance our aircraft maintenance programs. The first is to restructure our flightline maintenance organizations into production team maintenance organizational structures. In addition, we are looking at the viability of having regionalized repair activities. Rather than having the ability to repair all kinds of line replaceable units (such as radios and radar sets) at all MAC bases, we are trying to develop practical ways for a few stations to do these off-equipment repairs for other bases. Finally, and more unique to MAC than to other commands, we are looking at how we maintain our aircraft when performing missions away from the home stations. We are shifting some of the scheduled and preventative maintenance burden from total home station responsibility to being shared throughout the MAC system. We are also developing a system whereby relatively minor parts ordered at an en route station can be ordered for delivery at either the home station or at a scheduled stop on the aircraft's current mission.

We thought it was time for a fundamental change in our thinking which recognizes the professionalism and innate desires of our aircraft commanders to operate aircraft efficiently and safely. Our exceptional training programs prepare these aircraft commanders to make the critical decisions that impact their aircraft and their missions. By lowering the decision-making ability to the lowest level, the aircraft commander, we have put the responsibility and accountability at the level where it belongs.

The objective of the Action Eagle program is twofold: First to empower our people with an appropriate level of authority and responsibility, thereby allowing them to perform at the highest levels of effectiveness and productivity. And second to provide quality airlift and other services to our users. Action Eagle was initiated as a long term effort to improve the command and provide a framework that would allow MAC to adapt to changing world realities.

MAC's program to consolidate inspection visits was designed to reduce the number of oversight visits conducted within the command. The program will be implemented 1 April 1990 and initially calls for only one major inspection visit to a unit per year. The visits will include all inspector general inspections, functional area standardization and evaluation visits, and higher headquarters required reviews. Additionally, the one inspection will visit all MAC units on a base to alleviate multiple visits throughout the year. A long-term goal of our consolidation program is to move our oversight to a results orientation versus compliance orientation. By consolidating all inspections, evaluations, etc., into our inspector general 24 month visit schedule we will move toward that long-term goal. A supplementary aspect of this program is our recent decision to rescind our present staff assistance-type visit program. In its place, higher headquarters assistance will be conducted only at the request of unit commanders. Because I hold our commanders accountable for their readiness, it only follows that they should be the ones who determine when they need help. When this program is fully implemented the only formal visits from headquarters will be for inspection purposes or unit requested staff assistance. Thus, units will have more time to learn and hone combat skills and perform required missions--not constantly be preparing for inspections and staff assistance visits. Initiation of MAC's consolidation of inspections comes from a Defense Management Review (DMR) grass roots proposal and my specific direction to determine the extent and then reduce the number of higher headquarters' visits to the field.

Question: What cost-savings do you hope to gain from each of the initiatives listed in the former question and how will they be derived?

Answer: Given the experimental nature of some of these efforts, it is difficult to anticipate any tangible savings until the prototypes are carried out and the recommendations fully articulated. We anticipate realization of the benefits of regionalized repair to be the most beneficial in monetary terms, and view that effort as a first step in preparation for two levels of maintenance--flightline and depot--at some point in the future. The benefits of production team maintenance and doing more in the en route system will be gains in work productivity without increases in resources.

In making this change, we will be eliminating some of the frustration that our aircrews experience when decisions affecting their missions are made by staff personnel many miles away and far removed from the actual situation. A by-product of this change is that we will be able to eliminate some of the middle management positions which were required to administer the past decision-making process. We are planning on eliminating several rated positions at the numbered air forces and returning these personnel and their expertise to the cockpit.

A portion of the Action Eagle program involves implementation of the Total Quality Management philosophy throughout the command. As I am sure you know, Total Quality Management has been implemented by many US commercial businesses and government organizations to include General Motors, Federal Express and even the Internal Revenue Service. We would expect to realize cost savings on the same general order as these organizations after Action Eagle takes hold and begins to mature.

The purpose of this program is to allow commanders the ability to more efficiently and effectively run their organizations, and to better prepare their units to accomplish their mission. Cost savings was not the driver in deciding to adopt this oversight program. While we will eliminate some oversight visits and consolidate others, it will take time to fully realize all the benefits and cost savings derived from such a program. For instance, staff assistance-type visits will no longer be accomplished on a frequency prescribed by regulation or functional area schedules, but on an as needed basis determined by a commander. Also, consolidating other functional area inspections with our IG inspections will likewise lessen higher headquarters travel frequency, but to what extent is not yet apparent.

Question: How will you measure whether these changes have resulted in improved work productivity?

Answer: Measuring efficiencies and effectiveness of the personnel initiatives can qualitatively be measured by the retention of our rated personnel which we monitor closely. As for Total Quality Management, measurement is a necessary and inclusive part of the process. It demands that we measure progress using statistical process control techniques to identify deficiencies, make corrections, and continuously improve the processes we operate. We will continue oversight activities primarily through the use of Operational Readiness (ORI) and Unit Effectiveness Inspections (UEI). The results of these inspections should provide an indicator on how well the changes have contributed to productivity.

Consolidation of Airlift, Sealift, and Ground Transportation

Question: General Johnson, the Department of Defense spends $8 billion annually for its peacetime transportation requirements. Currently, these requirements are managed by various service commands within the Department of Defense. This is an area, however, that the Defense Management Review does not appear to be studying. Your command is tasked with managing all modes of transportation in wartime. Do you believe that efficiencies could result from consolidating management of sealift, airlift, and surface transportation in peacetime?

Answer: Yes. However, I want to emphasize we were originally created in 1987 out of need--not for efficiencies. Our focus is wartime, but it's becoming more apparent that to minimize turbulence in transition to war, we must be more involved in peacetime activities. Another reason is so USTRANSCOM can be an operational unified commander both in peace and in war. The end result should be better wartime mobility management and execution, as well as improved peacetime efficiencies.

Question: If peacetime transportation services were consolidated, do you believe management should reside in your command or in a Defense Agency?

Answer: Yes, USTRANSCOM should become the single organization responsible for and capable of providing global air, land, and sea transportation to meet national security objectives during peace, contingencies and war.

Question: If cost became the paramount factor in managing peacetime transportation, do you think the Department of Defense would use more over water and surface transportation and less airlift?

Answer: Each situation is scenario dependent. DOD currently uses over water and surface transportation to the maximum extent the current traffic management system allows--given mission requirements. Fixing the problems alluded to above will improve our ability to take maximum advantage of surface transportation opportunities--given mission requirements.

QUESTIONS SUBMITTED BY SENATOR BYRD

Need For The C-17 Cargo Plane

Question: The Air Force has embarked on a program to buy 210 C-17 heavy cargo planes over the next twenty years at a cost of almost $40 billion. The new plane was selected as a successor to the giant C-5 transport and has been viewed as an important part of an Air Force modernization plan that will reduce the need for many aging C-141 and C-130 cargo aircraft. The C-17 was also justified on the basis of a Soviet threat to Central Europe that is apparently now diminishing. It appears that the C-17 program is in trouble with developmental problems and escalating costs. How much of a priority is the Department of Defense willing to give the C-17 in relation to other aircraft acquisitions in an era of tightening Defense budgets?

Answer: First, the C-17 will add airlift capacity, flexibility, direct delivery, and modernize our aging C-141s--not replace C-5s. The C-17 was not intended as a replacement for the C-5. The C-17 was however designed to provide capabilities that do not exist in the current strategic fleet. The C-17 with its increased airlift capabilities (including outsize airdrop and direct delivery) and the added flexibility that these capabilities provide were intended for fleet modernization and replacement of the aging C-141 workhorse. The C-17 can fly into almost 3 times more airfields worldwide than can the C-141. Recently, the total program cost increased from $37B to $41B. The cost growth is attributable to two factors. The first cause was a congressionally directed stretch out of the procurement in FY 90. The cost of reducing the FY 90 buy from 6 to 4 aircraft and the additional reduction of long lead from 10 to 6 aircraft was $1.2B. The only other factor that impacted cost was the release in Jan 90 of revised OSD inflation indices which added $3.2B to the total program cost. The development and assembly of the aircraft is progressing well. A great deal of concern had been expressed in the late change of the contractor for the electronic flight control system (EFCS). General Electric Aerospace has extensive experience in the development of electronic flight control systems for military aircraft. GE has met several schedule milestones and is ahead of schedule for delivery of units to Douglas Aircraft Company, the prime contractor for the C-17.

QUESTIONS SUBMITTED BY SENATOR DeCONCINI

Warning Time and Response

Question: General, I have to admit that I am somewhat puzzled by aspects of your testimony. First, in your testimony you seem to imply that changes in the Soviet Union and Eastern Europe will tend to downgrade the importance of our transportation capabilities between the U.S. and Europe. It seems to me that you could turn that argument around. While a less hostile Soviet Union will make the outbreak of war in Europe less likely, it also makes it likely that we can withdraw significant levels of troops from Europe. Increased warning time of from 2-6 months will also make U.S. basing of troops destined to a European theatre more effective. Can you tell me the following: In calculating how much U.S. air and sealift capacity is necessary, what level of U.S. troops in Europe are you assuming? How many troops would have to be transported one month after a crisis in Europe? Three months after a crisis?

Answer: Before I answer your question let me clarify my position on the importance of transportation in our changing world. I believe a balanced, ready mobility force is, and will remain, crucial to this nation's security. As long as the United States pursues a defense strategy based on deterrence, the ability to project force anywhere in the world will be vital to the success of that strategy. Strategic mobility lies at the heart of force projection.

The parameters which determine reinforcement requirements are changing rapidly. I simply cannot give definitive answers to such questions. The answers will depend on the final CFE treaty, what forces we can maintain in Europe and CONUS within budgetary limits, and developments in the threat. All of these are changing at an unprecedented pace.

Question: What level of prepositioned equipment would you anticipate storing in Europe. How many troops would this support? How would these troops be transported? What level of equipment and personnel would be transported by airlift? By sealift?

Answer: Again, the parameters which determine reinforcement requirements are changing rapidly. I simply cannot give definitive answers to such questions at this time.

Question: Does the increased warning time provide opportunity for cost savings by allowing more use of sealift capacity?

Answer: We can save money only if we conclude that less airlift will be needed to fill the requirement for rapid response during a crisis in Europe or around the world. Increased warning time is a factor only if we decide to act on the events which provide the warning. In other words, An increase in warning time is only effective if those warnings are translated into a decision to mobilize. Historically, this decision has been postponed as long as possible for fear of escalating an already tenuous situation. Through the timely declaration of a national emergency, which would provide me access to the nearly 85 percent of our total lift capability residing in the commercial sector, increased reliance on sealift is possible. However, our overriding concern is to meet the delivery requirements of the theater commanders. It is the responsibility of USTRANSCOM to ensure our limited strategic lift assets are employed in the most effective manner possible to deliver material to the right place at the right time.

I believe it is also important to note that predictions of increased warning time are focused exclusively on Central Europe, an area where many believe the probability of confrontation has been reduced to a very low level. If we consider threats on a global basis, as I must, the chances of our becoming involved in conflict with little or no warning is as high as ever. In order to effectively respond to contingencies across the spectrum of conflict we must maintain a balanced and ready strategic lift force.

Question: What is the relative cost of sealift capacity to airlift capacity?

Answer: Current Industrial Fund tariffs are approximately $720 per ton to move cargo to Central Europe by air and approximately $100 per ton to move that cargo by sea. However, one must ask is it a bargain if badly needed material arrives too late to affect the outcome of a conflict as may have been the case if we had attempted to resupply Israel exclusively by sea during the 1973 Arab/Israeli war?

Question: How do the resources of your command compare with your assumptions on the level of U.S. troops and equipment that would be needed on a European front?

Answer: Today, we would rely on the commercial transportation industry to transport 85% of the cargo required to be moved in the event of a major deployment of U.S. forces. With the transportation assets available to USTRANSCOM, we cannot deliver on time all the cargo required by the warfighting CINCs. Even with planned force reductions, some options being considered in strategic planning circles indicate the requirements for deployment, and sustainment transportation may be increased if new directions are chosen. Such increases would have an increasingly dramatic impact, coupled with the projected sealift decline in the U.S. Maritime Industry. In order to maintain a deterrent force projection capability, it is imperative that we continue to enhance our strategic lift assets by working to achieve our current airlift and sealift goals.

QUESTIONS SUBMITTED BY SENATOR BUMPERS

C-141 SLEP

Question: In your statement you say that several options are being studied to extend the life of the C-141 aircraft, but that, in your opinion, such actions would not be cost effective and would not address the real need for fleet modernization. What are the options being studied for C-141 life extension? How much would they cost? How do these costs compare with the cost of replacing the C-141 fleet with a new fleet of C-17s?

Answer: We have high confidence, allowing for risk, that the projected 45,000 hour service life can be achieved at a cost of $1.5 billion. The risk comes from the possibility that other areas beyond those already identified within the aircraft may require repair. The $1.5 billion covers the cost of repair for systems that are known to be worn out. The 60,000-hour service life study, however, causes us great concern. Total projected cost to reach this point is $13 billion, and we haven't yet added the costs that would be incurred based on a structural teardown analysis. We do not have high confidence that 60,000 hours can be realistically projected or achieved. Unless we completely redesign and rebuild the C-141, various structural components will continue to age, increasing the possibility of failure. These unknowns add to the risk and have not been factored into the projected program costs. Senator, I don't want to come back in a few years asking you to fund additional repairs that, as of now, we are unable to anticipate. Bottom line - even if we spent the money and had high confidence, the US would still have a 25-year old aircraft that cannot meet our airlift needs for outsized cargo movement. Based on the unknowns, I cannot realistically compare the cost of a 60,000-hour C-141 to the program cost of the C-17.

Question: It was only a few years ago that Congress funded a major program to convert our fleet of C-141s from the "A" to the "B" configuration. This involved new high bypass ratio turbofan engines, a 23' fuselage extension, avionics, and wing work. At the time we were told this would significantly extend the C-141's service life. Now, a few years later, your testimony speaks in depressing tones about the limited future life of the C-141. What are the facts here? Did Congress spend billions of taxpayer dollars in vain for the C-141B program? What is the fleet average number of hours on the C-141B, and at current usage rates, what is its expected lifetime?

Answer: Let me start by clearing up a misconception. The current C-141 engine is the same as that used on the "A" model and we only performed minor avionics and wing work during the conversion. We did, however, add an in-flight refueling capability during the stretch. Congress didn't waste money on the "B" model stretch program. At the time, airlift requirements were increasing. The stretch added one third more lift capability to the C-141, equivalent to building 80 additional aircraft. In the late 70s, the C-141 had accumulated 20,000 hours, or about two thirds of its 30,000-hour designated service life. In 1977, study told us up front that to reach 45,000 hours, we would eventually need to perform additional inspections, corrosion treatments, and repairs. Senator, the future has arrived and, for the most part, the studies were correct. I say "for the most part" because we are finding additional structural problems that were not predicted--the pressure bulkhead is a good example. The current fleet average is 31,000 hours with an expected service life of 45,000 hours. We have already exceeded the designed service life and are confident that, with the current repair program, the 1977 prediction of 45,000 hours is attainable.

Question: You state that the C-17 will provide increased capabilities with lower manpower requirements and dramatically reduced operation and support costs when compared with our current fleet. Please provide manpower numbers and operation and support costs to support your contention.

Answer: The Airlift Master Plan, which is MAC's road map into the next century, details an airlift force structure that includes a mix of C-5, C-141, C-130, and C-17 aircraft. The manpower requirements for the force that includes a fully fielded C-17, is approximately 16,000 fewer than the option that procured more C-5 and C-130 aircraft to reach the same airlift capability. The lower manpower requirement coupled with the lower cost per flying hour (C-17 $2900, C-5 $5230) resulted in a significantly lower life cycle cost for the option which included the C-17 Increased capability, flexibility, and airlift modernization all at a lower life cycle cost are the reasons that the Air Force supports the C-17.

QUESTIONS SUBMITTED BY SENATOR RUDMAN

Shipping Personal Belongings

Question: In shipping the personal belongings of Department of Defense employees to overseas locations, does the Department contract with a private company or companies to provide this service? If so, what are the contract costs in FY 1990, and what are the anticipated costs in FY 1991?

Answer: Yes. Presently, MTMC contracts with 154 regulated freight forwarders for personal property international movement. The estimated costs are $573 million for FY 1990. The anticipated costs for FY 1991 are $607 million.

Question: Is there a limit on the personal belongings that can be shipped and, if so, what is the limit?

Answer: Yes there is a limit. It depends on the individuals rank and the type assignment. For example, the limits for the enlisted ranks range from 1,500-12,000 pounds for an unaccompanied permanent change of station (PCS) transfer and from 5,000-14,500 pounds for an accompanied PCS transfer. The limits for officers are from 10,000-18,000 pounds unaccompanied PCS and 12,000-18,000 pounds accompanied PCS. There are limits for Army personnel on unaccompanied overseas tours. The limits for an Army officer are 1,000 pounds for a short tour and 1,400-4,500 for a long tour. Overseas tours for Army enlisted personnel have limits ranging from 150-1,000 pounds for a short tour and 700-1,600 for a long tour. There are also limits for temporary duty assignments that range from 600-2000 pounds for officers and 225-600 pounds for enlisted.

Question: What is the unit of measurement used to assess costs under the contract or contracts, and what are these costs per unit of measurement?

Answer: The unit of measurement is per net hundred (NCWT), which includes weight and packing materials. The average cost per NCWT is $73.51 which includes packing at origin, international movement process, delivery, and unpacking at destination.

Question: What is the cost per family or person for the shipments?

Answer: The average cost for a 5,000 pound shipment is $3675.50

Question: What is the cost per pound of the shipments?

Answer: On average, 73.5 cents per pound.

QUESTIONS SUBMITTED BY SENATOR SPECTER

Reduced Lift Requirements

Question: In your opening comments you stated that you supported prepositioning of equipment because such initiatives acted to reduce lift requirements. Would the ability of helicopters to self deploy directly to areas of conflict also reduce your lift requirements?

Answer: That is an academic question because self deployment of helicopters and/or the Osprey is not practical. Due to air refueling capability, it is possible to self deploy some of the USAF helicopters and VSTOL aircraft such as the V-22 Osprey to reduce short range lift requirements; more realistically, when one considers the worldwide areas of possible conflict, self deployment of helicopters and/or the Osprey would not be practical. A self-deployment scenario would only be feasible to very near, offshore areas. Deployments to Europe, the Pacific, Southwest Asia, or other possible contingency locations would require the use of strategic lift assets.

Question: If the V22 Osprey, which has the ability to self deploy to many locations and in many situations, were to be fielded in lieu of conventional helicopters without that ability, would airlift requirements be reduced?

Answer: As I stated earlier, the airlift requirements would not be reduced when you consider the worldwide area of possible conflict. The self deployment of helicopters or an aircraft such as the Osprey would not be practical.

Question: How many aircraft, what type of aircraft and how many flights would be required to move 30 CH-46s and 360 marines from Ft Bragg to Central America?

Answer: The CH-46 is only airliftable in the C-5. At three helicopters and 73 passengers per C-5 aircraft, it would take ten C-5 missions to move the CH-46s and 360 marines.

U.S. CENTRAL COMMAND

STATEMENT OF GEN. H. NORMAN SCHWARZKOPF, COMMANDER IN CHIEF

OPENING REMARKS OF SENATOR INOUYE

Senator INOUYE. The subcommittee will now turn its attention to the operations of the U.S. Central Command, CENTCOM. Gen. H. Norman Schwarzkopf, Commander in Chief of the Central Command, will deliver the testimony on CENTCOM's fiscal year 1991 budget requirements, the U.S. military strategy in the region, and his assessment of current Middle East conflicts.

I would like to note that CENTCOM's area of responsibility is one of the world's most heavily armed and volatile. As East-West tensions decline and a NATO-Warsaw Pact conflict declines in probability, CENTCOM's military and geopolitical importance could be impacted greatly. So I believe that Congress should assess CENTCOM's current capabilities to carry out its principal war plans.

I say this because the statement that we have received emphasizes peacetime strategies. I think we should be concerned with your current capabilities to carry out war plans.

With that, I welcome you, sir, and I will tell you that we have received your statement as part of the record and you may proceed.

General SCHWARZKOPF. Thank you, Mr. Chairman. I am delighted to be here again as the Commander in Chief of Central Command.

I have a very brief opening statement. I know that the changes sweeping the Soviet Union and Eastern Europe have captured your attention and today I intend to report to you how U.S. Central Command is readjusting our focus in light of these dramatic events. But before highlighting how we have refocused, I would like to underscore that despite this global upheaval there is one constant, and that is that the CENTCOM area of responsibility is vital to our national interest and will remain so far into the future.

Mideast oil is the West's lifeblood. It fuels us today in having 77 percent of the Free World's proven oil reserves; it will fuel us when the rest of the world has run dry. In January, the American Petroleum Institute reported that "Domestic oil production in 1989 took the steepest yearly fall in history and petroleum imports rose to a 10-year high." And only this month we have had a further report that petroleum imports are now at an all-time high.

More than half of our oil is imported. Nearly one in four barrels of this imported oil comes from the Persian Gulf region. Our allies are even more dependent on Middle East oil. Japan gets almost two-thirds of its oil from the area, while our allies in Europe import over one-quarter. The bottom line is that the West is dependent on imported oil for its economic lifeblood and today a great deal of it comes from the Middle East. Tomorrow, the great majority of it will come from the Middle East.

The dramatic events of the past year have given rise to high expectations that the cold war is over, while at CENTCOM we still believe that the Soviet Union remains the most dangerous military threat. We also believe that their setback in Afghanistan and the changes in Eastern Europe have rendered Soviet intent to use their power remote, at least for now.

As a result, we in Central Command now consider our most dangerous scenario to be the spillover of some local conflict leading to a regional war which would threaten American lives and vital U.S. interests. The chart before you shows that there are 13 conflicts right now in our area, and several of them could jeopardize our interests in the region.

The Iran-Iraq war, with no peace 1½ years after the ceasefire, is the best example of how a local conflict can become a threat to our interests and warrant the commitment of U.S. forces. When over 16,000 U.S. servicemen and women were committed to protect the freedom of navigation in the Persian Gulf, not a single Soviet soldier or sailor was directly involved. This illustrates why we must remain ready to deal with regional crisis, even though the immediate Soviet threat may be diminished.

How we stack up against this challenge depends on how we execute our peacetime strategy, and this in turn depends upon three important programs—security assistance, United States presence, and combined exercises.

Mr. Chairman and members of the subcommittee, only a short time ago the United States had few dependable friends in our region: we had suffered through an OPEC oil embargo; the Soviet Union was threatening to make good on its goal to secure a warm water port in the gulf area and the United States was being humiliated by a hostile Iranian Government.

Today, this situation has been reversed, and due to our actions in the Persian Gulf, our stock in the Middle East is high. We have many friends who have demonstrated a willingness to help us in time of crisis. We have secured access rights and prepositioned supplies in several important locations. Iranian aggression has been checked, and oil flows freely and smoothly to the West.

In large measure this turnaround can be attributed to United States resolve to build strong partnerships during peacetime and to stay the course when challenged.

In closing, let me assure you that CENTCOM is ready to fight and win if we are called on to do so. The President's budget supports our peacetime regional contingency and global warfare needs, and with your support I can assure you that the U.S. Central Command will continue to accomplish its mission.

Thank you, sir.

[The statement follows:]

STATEMENT OF GEN. H. NORMAN SCHWARZKOPF

Mr. Chairman, members of the committee. I welcome the opportunity to appear before you today to testify again as Commander in Chief, United States Central Command.

EXECUTIVE SUMMARY

In the time that I have commanded the United States Central Command, these facts have become clear to me:

- —The economies of the U.S. and its European and Pacific allies are increasingly dependent on the uninterrupted flow of Persian Gulf oil.
- —The greatest threat to U.S. interests in the area is the spillover of a regional conflict which could endanger American lives, threaten U.S. interests in the area or interrupt the flow of oil, thereby requiring the commitment of U.S. combat forces.
- —Although the Soviet Union retains the capability to project a powerful military force into the region, the impact of increased Soviet diplomatic and economic initiatives to enhance its presence, access and influence is of greater near-term significance to U.S. interests.
- —The emerging proliferation of long-range missile delivery systems capable of employing nuclear, biological and chemical warheads adds a new and alarmingly lethal dimension which could threaten the military and political balance of the region.
- —Three mutually supporting strategies are required for the region: one for peacetime, one for regional contingencies and one for global warfare.
- —Cooperation with and access granted by friendly regional states are key elements for projecting U.S. forces into the region in times of conflict.
- —There is a growing economic, military and political self assertiveness among key regional states. When this is combined with declining and erratic security assistance funding and restrictive arms sales practices, our credibility with states supportive of our regional objectives is called into question. Our friends, while preferring U.S. equipment and sustainment packages, are fully prepared to and do go elsewhere to purchase what they need for their self-defense.
- —Friendly regional states are appreciative of the role of the U.S. in establishing and maintaining safe transit in the Gulf. Our challenge is to build on this goodwill by continuing to demonstrate a commitment that is firm, credible and durable.

Southwest Asia sits astride the major maritime trade routes linking the Middle East, Europe, South and East Asia, and the Western Hemisphere. Ships transiting these routes and the strategic maritime choke points of the Strait of Hormuz, the Suez Canal and the Bab el Mandeb carry the critical petroleum products that propel the economies of the U.S. and our European and Pacific allies. The dependency of these economies on Persian Gulf oil will increase as we enter the 21st century. For example, it is estimated that within 20 to 40 years the U.S. will have virtually depleted its economically available oil reserves, while the Persian Gulf region will still have at least 100 years of proven oil reserves in the ground, with many promising areas still unexplored.

This situation serves to highlight the geostrategic importance of this vital region. With the threat of direct superpower confrontation apparently receding, the most probable near-term threat to the uninterrupted flow of oil would likely originate from a regional conflict within USCENTCOM's area of responsibility (AOR) To illustrate, in the Iran-Iraq War, we witnessed a border war, which spilled over and threatened the flow of Persian Gulf oil; a clash of ideologically based political systems; and an ethnic and religious struggle. These same destabilizing conditions, and others, are evident throughout the area and represent potential sources for renewed regional conflict. Any one of these conflicts could threaten American interests and lives and, once again, require the commitment of American military forces. To properly position itself as a moderating, stabilizing and deterrent force in the region, the U.S. must continue to pursue those policies and initiatives which maintain our presence, guarantee our access, and enhance our cooperation with the friendly states of the region.

Of particular interest to USCENTCOM is the perceived reduction of the immediate Soviet military threat to Southwest Asia. Ongoing political and domestic events within the Soviet Union and Eastern Europe are having a moderating effect on United States-Soviet relations. Despite the probable change in Soviet intentions, however, its capability to employ forces in our AOR cannot be completely ignored. A significant United States-Soviet postured ground force imbalance remains, and the Soviets continue to maintain a strong naval presence in the area. Nonetheless, the prospect for a near-term, direct United States-Soviet military confrontation is low. Of more immediate concern is the fact that the Soviets are continuing efforts designed to expand their influence throughout this region. Soviet military and economic assistance to many AOR countries continues to counter United States initiatives. They are engaged in ongoing diplomatic efforts to improve relations, increase contacts or open embassies in countries where in the past they were unwelcome. Since 1985, the Soviets have established diplomatic relations with Oman, UAE, and Qatar and renewed relations with Egypt and Iran. Normalized relations with Saudi Arabia and Bahrain are a distinct possibility. The United States must be willing to demonstrate steadfastness and commitment in order to counter Soviet initiatives in the region, including their penchant for exploiting our friends' doubts concerning U.S. resolve.

An increasingly significant threat to the military balance in the region is the emergence of long-range missiles and nuclear, biological and chemical arms development and proliferation. The employment of chemical munitions as anti-personnel weapons and the extensive use of SCUD missiles in the "War of the Cities" have driven more moderate non-belligerent neighbors to perceive a need to obtain similar capabilities as deterrents. This accelerated upgrading in the quality, lethality and range of these types of arms contributes to both military and political instability.

Given this situation, the successful accomplishment of the USCENTCOM mission requires three mutually supporting strategies:one for peacetime, one for regional contingencies and one for global warfare.

USCENTCOM's peacetime strategy is designed to demonstrate the depth of U.S. commitment to the region, assist our friends in their efforts to fulfill defense requirements and counter outside attempts to gain or expand spheres of influence. It relies on three pillars: presence, security assistance and combined exercises. Today, the Joint Task Force Middle East (JTFME), although reduced in size considerably since the Iran-Iraq ceasefire, continues to be the most visible symbol of our presence in the region. The current force of ships and aircraft is still sufficient to continue execution of the highly successful Earnest Will operation. This operation provides naval protection for all U.S.-flagged ships transiting the Persian Gulf as well as for other Free World merchant ships requesting assistance during passage. The ongoing operation clearly demonstrates to our friends in the region that we are willing and able to wield considerable military might to underscore important commitments.

Security assistance, a primary instrument in implementing USCENTCOM's peacetime strategy, will only achieve the desired long-term, mutually beneficial security relations with moderate states of the region as long as the U.S. is seen as a reliable partner. Unfortunately, declining security assistance levels since 1985 and sharply reduced support for non-earmarked countries have threatened our reputation as a reliable partner and fostered the impression that the U.S. is retreating from its regional responsibilities. The funds currently available to several of the countries vital to our strategy do not provide for even their basic military needs. Sometimes we erroneously perceive the U.S. as being the region's sole potential benefactor. This perception is incorrect. The vast oil wealth of some of these countries enables them to dictate independent courses of action, choices for diplomatic relationships and, of course, suppliers for their defense needs. As other foreign governments continue to make new inroads into the region, U.S. presence and potential for access are being eroded. As a result, American influence is shrinking. The U.S. must be willing to fund security assistance for our friends, not only to sustain their confidence in us, but also to gain access to facilities that could prove crucial in times of crisis.

Our restrictive arms transfer policies have produced inconsistent and frequently embarrassing results for our Arab friends. As a consequence, these states are turning to other sources to procure their military equipment needs. In almost every case, the weapons acquired have fewer constraints on employment than those purchased from the U.S. This growing loss of regional arms sales lessens our ability to serve as a moderating voice in regional conflicts. The U.S. should be ready to respond positively to our friends' legitimate requests to buy arms. In this way we can actually act as a positive influence over undesirable weapons proliferation.

Combined exercises, the third pillar of our peacetime strategy, serve to visibly demonstrate U.S. resolve and our ongoing commitment to the region. This is particularly true since we have few permanently assigned forces in the area. Military-to-military relations, developed during U.S.-host-nation exercises, help foster increased cooperation and reflect our ability and intent to support regional stability while working together in a coalition environment. In those states whose security assistance funding has been reduced or curtailed, these exercises assume an added importance. Funding for combined exercises should be maintained and, when prudent, increased to moderate the impact of reduced security assistance and lack of forward deployed forces in the area.

Our regional contingency strategy builds on the peacetime strategy and is designed to provide an extensive range of options to permit flexible, measured responses to regional aggression. This approach strengthens our deterrent and warfighting abilities. Flexibility prevents a potential aggressor from predicting our reaction and what price he would pay for breaking the peace. However, if this does not deter an aggressor, this same flexibility would then provide options for reacting to any new conditions. In all cases, emphasis is placed on coalition operations with our friends and allies assuming their share of responsibility for the region's defense and security. This approach allows us to concentrate on those actions necessary to reach a speedy and favorable end to any crisis.

Our wartime strategy is based on U.S. global confrontation with the Soviet Union. With the full realization that our AOR could be a secondary theater with regard to resource allocations, we will again depend heavily on coalition warfare with our friends and allies and on the defense of critical choke points to ensure freedom of navigation and access to Persian Gulf oil. Given the improvement in U.S.-Soviet relations, USCENTCOM believes the potential for direct conflict with the Soviets in this region has been significantly reduced for the near term. Nonetheless, we are prepared to execute our wartime mission as directed by the National Command Authority.

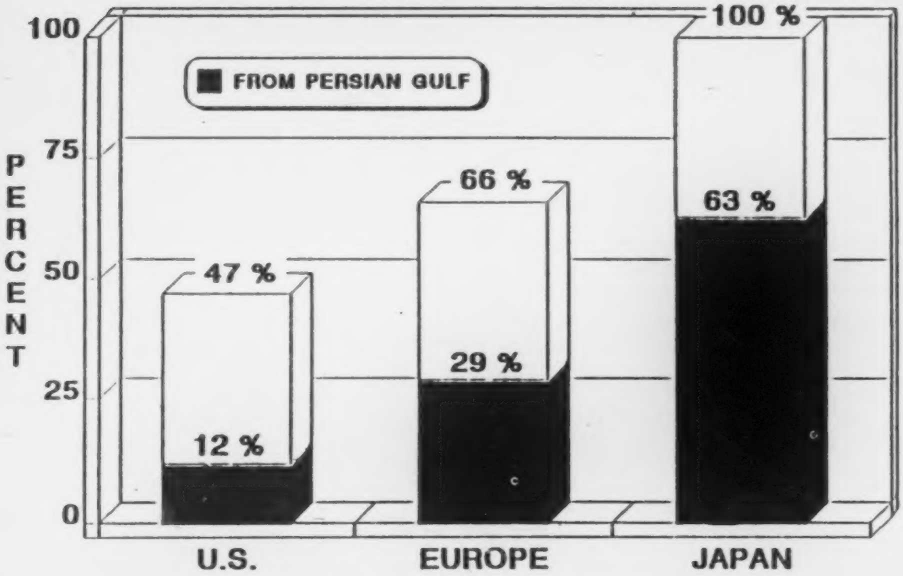
By maintaining our presence and building on our relationships through combined exercises and favorable security assistance, we demonstrate our resolve and willingness to respond to the legitimate defense needs of our friends in the region. Reinforcing this cooperative relationship lies at the heart of the access granted by friendly regional states, without which the U.S. cannot for long successfully project forces during conflict. The strategic location of the area and the criticality of maintaining the free flow of Persian Gulf oil to fuel the world's economy ensures that USCENTCOM's AOR will remain vital to the security of the United States, Western Europe and the Pacific.

STRATEGIC IMPORTANCE OF THE AREA OF RESPONSIBILITY

With free world economies increasingly dependent on the uninterrupted flow of Southwest Asian oil, the U.S. has a vital interest in maintaining the unrestricted access to governments, people and resources of this region. This same goal is strategically important for the Soviet Union. While the attention of the world has focused on the dramatic events reshaping Eastern Europe, the Soviet Union has continued to expand its influence throughout the region. The Soviets provide military and economic assistance to eight AOR countries, and they are involved in daily diplomatic efforts to improve relations, expand contacts, and open embassies in areas where they were previously not welcome. During their transit of the Persian Gulf, Kuwaiti-chartered Soviet tankers are still monitored by Soviet combatants. In fact, the Soviet naval presence in the Persian Gulf and North Arabian Sea is now larger than our own. The Soviet Union will continue to actively pursue its interests throughout the region, in part because it will become a net oil importer in the future.

This volatile region contains 77 percent of the Free World's proven oil reserves. While some estimates indicate that our own economically exploitable reserves could be depleted in 20-40 years, the Persian Gulf region will still have over 100 years of proven reserves, with many promising areas yet to be explored. During 1989 alone, over 13 million barrels of oil were exported daily from this region—oil which helped fuel the economies of Europe, Asia and the U.S.

1989 OIL IMPORTS AS A PERCENTAGE OF NATIONAL REQUIREMENTS



Our dependence on imported oil has been growing. During 1989, roughly 47 percent of our total consumption was imported—an increase of 5 percent over the previous year. Almost 1 of every 4 barrels of the imported oil was shipped from the Gulf region. Our European allies and Japan also rely on the unrestricted flow of Persian Gulf oil to meet their energy requirements. Last year, 29 percent of Europe's oil needs were filled by imports from the Persian Gulf. For Japan, access to Gulf oil is critical. In 1989, Japan imported 63 percent of its total petroleum requirement from this region. Studies indicate that declining U.S. production (as much as 20 percent by the year 2000) will increase reliance on imported oil. At our current rate, we will import over half of our petroleum needs this year.

CHOKEPOINTS

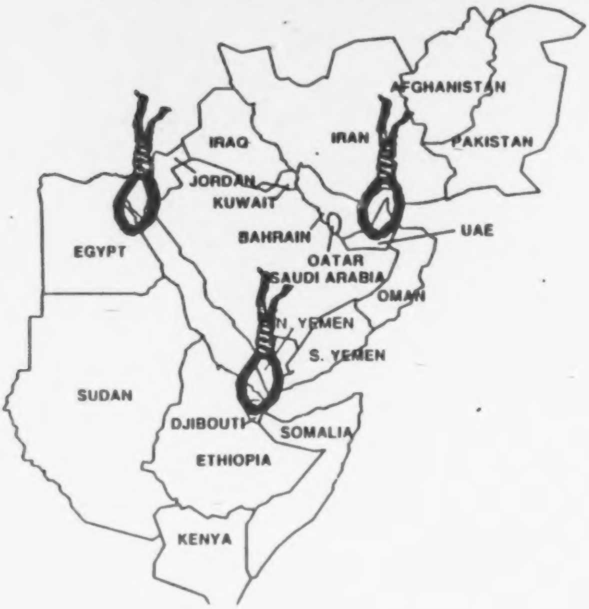


FIGURE 2

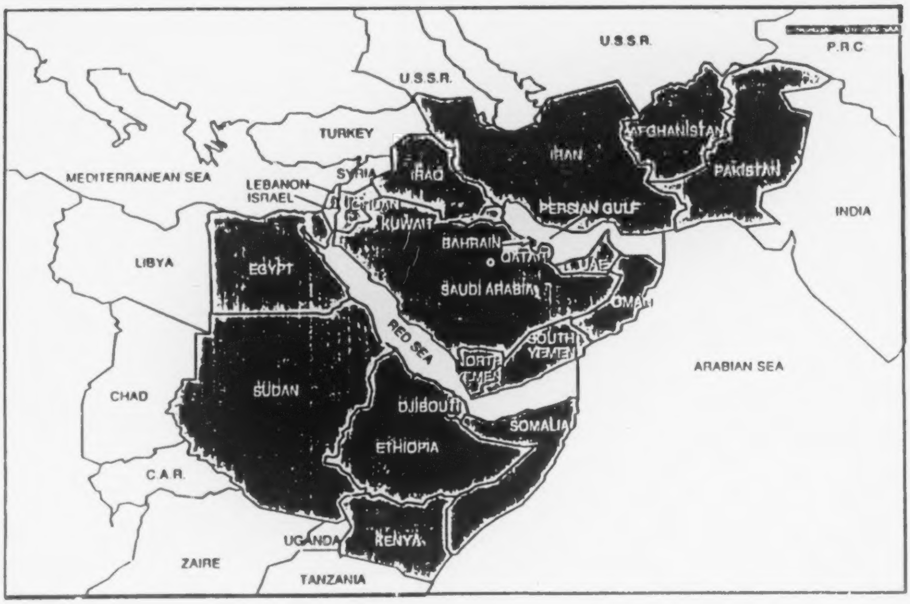
Whether shipped directly from Persian Gulf ports or through the trans-Arabian pipeline to the expanding Saudi and Iraqi facilities at Yanbu on the Red Sea, this oil must flow through the region's strategic waterways and their critical choke points. The Persian Gulf and its choke point, the Strait of Hormuz, provides the only maritime passage for direct access to the crucial oil fields and transshipment facilities. The Red Sea, with the Suez Canal in the north and the Bab el Mandeb in the south, is one of the most vital sea lines of communication and a critical shipping link between our Pacific and European allies. Annually, over 21,000 vessels transit the Suez Canal, 33 percent more than the Panama Canal. The Red Sea route and Bab el Mandeb will become even more important as the handling and export capabilities of the Yanbu oil transshipment facilities increase. By the mid-1990's, at maximum capacity, 90 percent of the Saudi and 40 percent of the Iraqi oil exports could be flowing from Yanbu to destinations throughout the world. Most of this oil will have to pass through the Bab el Mandeb because supertankers are too large for the Suez Canal.

During peacetime, both of these waterways are essential for the smooth movement of commerce. During conflict, they would be crucial paths for the rapid deployment and sustainment of friendly forces, the only viable alternative being around the southern coast of Africa. During a crisis, this route would increase transit distance by 3400 miles and deployment times by almost 30 percent. Such increases would decrease the range of options available for our response.

Since a significant part of USCENTCOM's forces would deploy by sea, ensuring these waterways remain open to free world shipping must be a key objective. Further, during peace or conflict, the protection of these critical waterways and their choke points is completely dependent on the cooperation of friendly regional states.

REGIONAL ANALYSIS

In the following pages, each of the AOR's geographic subregions is evaluated as an entity. A country-by-country analysis is also provided to highlight significant issues facing USCENTCOM.


U.S.S.R.
P.R.C.
U.S.S.R.
TURKEY
MEDITERRANEAN SEA
LEBANON
ISRAEL
SYRIA
IRAQ
IRAN
AFGHANISTAN
PAKISTAN
INDIA
JORDAN
KUWAIT
PERSIAN GULF
BAHRAIN
QATAR
UAE
LIBYA
EGYPT
SAUDI ARABIA
OMAN
RED SEA
SOUTH YEMEN
NORTH YEMEN
ARABIAN SEA
CHAD
SUDAN
DJIBOUTI
SOMALIA
ETHIOPIA
C.A.R.
UGANDA
KENYA
ZAIRE
TANZANIA

PERSIAN GULF UPDATE

Often the focus of U.S. concern in the region, the Persian Gulf remains a dynamic and volatile area. The possibility of renewed fighting in that body of water poses a significant threat to Western and U.S. interests.

IRAN-IRAQ CEASE FIRE

The UN-sponsored cease-fire of August 1988 continues to hold. However, Iran and Iraq are unlikely to agree on a formal peace settlement anytime soon. Key issues stalling the peace process are the withdrawal of forces to prewar boundaries, POW exchanges, freedom of navigation and sovereignty over the important Shatt-al Arab waterway. While negotiations continue, Iraq maintains its hold on small but politically significant sections of Iranian territory, and is unwilling to surrender them without specific Iranian concessions. Iran, in turn, refuses to concede anything until Iraq withdraws from its territories. Instead of focusing on rebuilding their devastated economies, both countries are manufacturing and importing increasingly sophisticated armaments to enhance their military capabilities. This no peace-no war situation is a matter of great concern to leaders in our region. Universally, they believe that the cease-fire represents only a lull in the fighting; and that as soon as Iran has adequately rearmed, it will go back to war with Iraq.

The Iran-Iraq War illustrates the difficulties we face in restricting the sale of sophisticated weapons to regional belligerents. Between 1980 and 1988, 41 nations sold arms to one country or the other. Twenty-eight of these nations supplied both sides, accounting for over 93 percent of all arms delivered during the war. As the following table indicates, these sales involved a variety of sources:

ARMS SALES TO IRAN AND IRAQ

SOURCE	IRAN	IRAQ
East Asia	42% *	11% **
Warsaw Pact	21%	57%
NATO Countries	16%	21%
Other European Nations	12%	5%
Developing Countries	9%	6%

* Primarily PRC and North Korea
** Primarily PRC

FIGURE 4

STATUS OF OPERATION EARNEST WILL

Operation Earnest Will, the protection of U.S.-flagged shipping and reflagged Kuwaiti tankers during their transit of the Persian Gulf, did not end with the Iran-Iraq cease-fire, but, in fact, continues today. Earnest Will remains the clearest demonstration of U.S. commitment to regional security—displaying our resolve to our friends by assisting them in maintaining the free flow of oil. To date, we have successfully conducted more than 380 Earnest Will missions, providing protection for more than 540 ships. The success of these missions, and other Gulf actions, has reduced the direct threat to all shipping. As the threat has changed, we have significantly reduced the forces deployed, while maintaining the capability to quickly reinforce and meet any new challenges.

Earnest Will has improved freedom of navigation throughout the Persian Gulf. While our actions and those of friendly regional states have reduced the overall danger to shipping, major concerns remain: the absence of a permanent settlement between Iran and Iraq; the Iranian Exclusion Zone which effectively restricts free commerce from using one-half of the Gulf, including a section of the major deep-water tanker channel; Iranian offensive naval and amphibious exercises in the Gulf along with their SILKWORM missile capabilities; and drifting mines and undisclosed mine fields.

GULF COOPERATION COUNCIL (GCC)

Kuwait, Saudi Arabia, Bahrain, Qatar, United Arab Emirates and Oman established the GCC in May 1981 in recognition of the need to develop coordinated responses to regional threats. Since its founding, the council has made considerable progress in cooperative economic, diplomatic and military security efforts.

The Peninsula Shield Force, the military arm of the GCC, provides a viable military complement to diplomatic efforts to maintain stability and deter military threats against the GCC states. However, it does not have the status or capabilities of a fully integrated regional military alliance such as NATO. The GCC states would need extensive military assistance from outside the region to defend against a challenge from any major regional power or the Soviet Union.

IRAN

Iran's weakened economy and its radical revolutionary movement combine to make it both volatile and unpredictable. While its declared objective is rebuilding a devastated economy, Iran has continued its arms race with Iraq, including advancements in the areas of chemical weapons and surface-to-surface missiles. Additionally, recent offensive naval and amphibious exercises in the Persian Gulf continue to demonstrate Iran's capability to threaten the GCC states and neutral shipping.

Iran has shown some willingness to normalize relations with the GCC states of Bahrain, Oman and UAE. However, it has not changed its overall antagonistic posture toward the West. Therefore, the post-war arms race with Iraq has created opportunities for military sales by communist states and has even led to a Soviet-Iranian dialogue and agreements on economic and defense matters.

Iran's future in the post-Khomeini era is uncertain at best. Confrontations between moderate and radical elements do not portend well for political stability or economic recovery. However, Tehran seems increasingly aware that the gap between available resources and domestic needs cannot be bridged without foreign assistance. It remains to be seen whether Iranian President Rafsanjani can survive and guide Iran along a path toward moderation and stability, or whether Iran will slip back into the hands of powerful anti-Western radicals. In either case, the U.S. response to an Iranian attempt at rapprochement should be based on the principle of reciprocity. In the meantime, the U.S. should assist friendly states to counter Iranian influence in the region.

IRAQ

The cease-fire with Iran has allowed Iraq to resume its bid for leadership and influence within the Arab world. Iraq ended the war with one of the largest and best-equipped military forces in the world. From 1980 to 1988, an estimated 35 percent of Iraq's GNP was devoted to military expenditures. From 1984 to 1988, approximately 5 percent of the Iraqi population was serving in the armed forces. For comparison, this would equate to a standing U.S. military force over 13 million with an annual defense budget of $1.6 trillion.

Even though it enjoys a significant post-war military advantage over Iran, Iraq continues to import arms. Of greater concern, however, is its domestic arms industry, the most advanced in the region. Iraq is now capable of producing chemical munitions and medium-range missiles. The recent test firing of an Iraqi-developed three-stage missile with a range of over 1,500 nautical miles will create a perceived need for a similar capability in neighboring states. This will further complicate the existing problem of missile proliferation by other regional states.

Although generally mistrustful of the U.S., Iraq would welcome measured U.S. participation in its economic development. Currently, oil exports make it America's second largest Middle Eastern trading partner. The U.S. should continue to develop its contacts with Iraq by building selectively on existing political and economic relationships. We should also encourage and reinforce those other states in the region that act as a moderating influence.

KUWAIT

With substantial financial assets and the world's fourth largest oil reserve, Kuwait has a global stature that far exceeds its size. Subject to external pressures, Kuwait has historically used diplomacy to solve problems with its neighbors. Despite this preference for diplomatic solutions, Kuwait is investing heavily in military equipment to upgrade its defensive capabilities. Current purchases are based, in large measure, on Kuwaiti concerns over uncertainties regarding the Iran-Iraq cease-fire. While preferring friendly relations with the U.S., Kuwait is not dependent upon us for military or economic support. In attempting to meet its defense requirements, Kuwait has the capability to deal with a wide range of military suppliers as typified by its acquisition of Yugoslavian M-84 tanks and Soviet BMP-2 armored personnel carriers.

Our improved relationship with Kuwait is a direct result of strong and unwavering U.S. support for our regional friends during the Gulf War. Continued U.S. protection of reflagged Kuwaiti tankers in the Gulf serves to further strengthen this relationship. As Kuwait upgrades its military capabilities, U.S. security assistance programs can provide additional opportunities to improve our military-to-military relationship, while encouraging the development of regional defense arrangements with other GCC states. Our continued close relations with this stable petroleum and financial power will reassure Kuwait of our steadfastness in the Gulf area.

SAUDI ARABIA

Saudi Arabia is the largest and one of the most influential nations in the region. Its vast oil resources (30 percent of the Free World's known reserves), moderate political orientation and strategic location make it a key player within the GCC and a considerable force in maintaining regional stability. The extensive financial assistance Saudi Arabia provides to other regional states is a major factor promoting a stable economic structure. Its oil wealth and ongoing efforts to resolve regional disagreements make Saudi Arabia one of the foci of U.S. cooperative efforts within the region. However, these same factors have encouraged efforts by other Western nations and the Soviet Union to broaden relations with Saudi Arabia.

We believe that Saudi Arabia would prefer to have the U.S. as its primary military partner. However, as a result of restrictive U.S. foreign military sales policies, the preeminent position we once enjoyed in the country no longer exists. As U.S. support waivers, other nations, most notably our European allies, eagerly fill the vacuum and enjoy the significant commercial spill-over projects that accompany military sales. For example, in addition to the highly publicized purchase of British TORNADO aircraft, the Saudi Navy now operates French frigates, British minehunters and German patrol and landing craft. Its ground forces are armed with artillery from Brazil, mortars from Spain, multiple rocket launchers from Germany and armor from France. As a result, the U.S. has already lost tens of billions of dollars in exports and domestic employment opportunities.

The recent M1 tank sale to the Saudis represented a critical test of our credibility as a long-term defense partner. With the Congressional approval of this sale, Saudi confidence in our commitment to the region (and our ability to affect the types and quantities of weapons introduced into the region) has improved. To build on this success, we must maintain our support for Saudi Arabia's legitimate defense needs. Hesitancy on our part will cause the Saudis and other regional friends to again question the reliability of the U.S. as a dependable defense partner, result in continued erosion of U.S. influence in the region and call into question a strong relationship that has existed since World War II.

BAHRAIN

Bahrain is a long-term friend of the U.S. that continues to provide invaluable support to the Joint Task Force Middle East (JTFME). Bahrain's cooperation is key to maintaining our operations throughout the Persian Gulf.

We must work closely with the Bahrainis to repair the damage to our relationship caused by the STINGER buy-back issue. They are still suspicious of the buy-back provision that has been extended until 1991 and cannot understand why the United States has singled out one of its best friends in the region for this type of treatment. Continued support and preferential treatment for programs that improve Bahrain's defense capabilities will help strengthen this important friendship and contribute directly to the region's stability. Providing the opportunity to purchase state of-the-art U.S. military equipment not only enhances Bahrain's self-defense posture, but also supports its active role in GCC regional defense efforts and demonstrates to other nations in the region that Bahrain's close cooperation with the U.S. has been rewarded.

QATAR

Located near the center of the Persian Gulf, Qatar's security is of significant concern to the West and to other regional states that depend on the free passage of oil. While United States-Qatari relations are generally friendly, military cooperation has been interrupted and security assistance frozen pending resolution of the ongoing STINGER controversy. Once the STINGER issue is resolved, USCENTCOM looks forward to resuming our military-to military relations, and to enhancing its ability to support the regional defense efforts of the GCC.

UNITED ARAB EMIRATES (UAE)

UAE occupies a strategic position on the Arabian Peninsula. It borders on both the Persian Gulf and the Gulf of Oman and is separated from the Strait of Hormuz by only a small section of Omani territory. As the fourth largest oil producer in the Persian Gulf region, its oil wealth, coupled with its generous foreign assistance programs, gives it far more stature than the country's population and size would suggest. A respected member of the GCC, UAE has gained a well-deserved reputation for its success in mediating regional disputes—the most recent example being UAE's major role in the successful mediation of the PDRY-Oman border dispute.

UAE faces a particularly difficult task in defending its lengthy island-dotted coast. This was highlighted during the Iran/Iraq War when an offshore oil platform was attacked by the Iranian air force causing both military and civilian casualties. At that time, the UAE asked the U.S. for STINGER missile protection. This request was refused and the Soviet Union promptly stepped in and provided its most modern 5A-14 air defense missiles. This incident has not been forgotten by the UAE. More recently, U.S. security assistance has focused on promoting improved air defense and early warning capabilities to counter potential air threats. Like other regional states, however, UAE does not depend on the U.S. for military support. While preferring to do business with the U.S., it has established active political and military links with a number of arms suppliers to ensure its defense needs will be met. For example, only recently, the UAE Air Force accepted delivery of the French MIRAGE 2000 fighter aircraft. For its part, the U.S.should build on a fundamentally sound relationship with UAE by maintaining current programs and demonstrating a willingness to respond rapidly and favorably to requests for future defensive requirements.

OMAN

A strong and independent Oman on the southern approach to the Persian Gulf is important to regional stability and to the uninterrupted flow of oil. The country is a regional leader and a stabilizing influence that is working to improve relations with Iran. As the new Chairman of the GCC, Sultan Qaboos will bring his leadership and diplomatic skills to a broad agenda of issues of concern to the Gulf states.

Oman is one of our best friends in the region. The terms of our 1980 Access Agreement and Oman's continuing security cooperation with the U.S. improve our ability to respond to threats throughout the region and are key to the success of U.S. strategic planning.

United States military sales are designed to improve Oman's ability to participate in the GCC's regional defense effort and to deter potential threats from Iran and PDRY. While the recent PDRY incursion into Omani territory was settled diplomatically, increased Omani confidence in its own defensive capabilities and in the U.S. commitment to continuing defense cooperation was an indispensable requirement for success. The peaceful termination of this provocation is representative of the positive results that can be achieved through U.S. programs designed to improve the region's security and stability.

JORDAN

A significant force in moderating regional affairs, Jordan was instrumental in arranging the Iran-Iraq cease-fire and has continued to work toward a comprehensive peace treaty. It has also been a key contributor to the search for a resolution of the Arab Israeli confrontation and the Palestinian issue by helping to gain the Palestine Liberation Organization (PLO) acceptance of UN Security Council Resolutions 242 and 338. It also helped to persuade the PLO to renounce the use of violence.

Jordan's recent parliamentary elections underline King Hussein's commitment to the constitutional monarchy and the concept of democracy. Jordan is proceeding with political liberalization, to include the completion of a national charter. This charter is expected to end martial law and to legalize political parties. The newly installed parliament, however, will face significant challenges in attempting to resolve Jordan's severe economic problems. Jordan has recently been forced to refinance or reschedule its international debts, and the Jordanian dinar has lost a significant portion of its value compared to the U.S. dollar. As a result, Jordan is finding it increasingly difficult to finance its legitimate security requirements.

The U.S. has long considered Jordan a dependable and cooperative friend. During recent exercises, Jordanian and U.S. troops conducted highly effective combined air and ground training. Despite our close relations, economic problems, coupled with decreased levels of U.S. security assistance over the years, have forced Jordan to turn to other countries for equipment, such as the French MIRAGE 2000 aircraft and Soviet SA-8 surface-to-air missile system. The increased security assistance funding provided by Congress for fiscal year 1990 was a reaffirmation of U.S. commitment to Jordan's need to meet its defense requirements. Unfortunately, even with this increase, Jordan may be forced to sell some of its U.S. equipment in order to maintain, sustain or moderately upgrade other U.S. defensive systems. The U.S. must continue to bolster this key relationship with adequate levels of security assistance and timely, positive responses to legitimate arms sale requests.

EGYPT

Historically, Egypt has assumed a leadership role in the resolution of regional affairs. Its strategic location, operation of the Suez Canal, and, most importantly, forward-thinking policies have made it one of the region's leading powers. Egypt's courageous stance at Camp David was a critical first step towards solving the Arab-Israeli question. Egypt's readmission this past year to the Arab League confirms the wisdom of seeking peaceful solutions to long-standing problems and reestablishes its standing among the Arab states. President Mubarak, as a result, is playing an increasingly important role in the maintenance of regional stability and the resolution of regional conflicts. Recently, Egypt's role in efforts to resolve the PLO-Israeli confrontation through President Mubarak's ten-point plan have demonstrated Egypt's ability to be an important moderating force.

Bilateral cooperation between our two nations is essential in overall U.S. regional strategy. Our military-to-military relationship with Egypt, a key element of bilateral cooperation, is strong and mutually beneficial. For example, Egypt is the region's major participant in combined exercises with the U.S. In the event of a regional crisis, the experience and goodwill gleaned from these exercises would prove to be invaluable, as we could look to this important friend for support and cooperation.

Egypt, however, is facing serious domestic problems. President Mubarak is struggling to gain public acceptance of economic reforms that are preconditions for further International Monetary Fund (IMF) support. Faced with dwindling resources and a potentially explosive population problem, he needs to accomplish two important and difficult tasks: Privatization of the public sector and restructuring of social welfare programs which date back to the 1950's.

To accomplish these tasks, President Mubarak is seeking every possible economic opportunity for his country. An example of these efforts is the recent bilateral agreement with Libya. Negotiations with Qadhafi have reopened the border and established the basis for future cooperation in agriculture and industry. One important benefit of these initiatives for Egypt is the opening of employment opportunities for Egyptians in Libya. With labor markets in other Arab countries shrinking, Egypt needs to find opportunities for its large expatriate labor force. Improved relations with Libya may also enable President Mubarak to influence Qadhafi's behavior and dampen Libyan adventurism.

During this time of economic difficulty, it is imperative that we continue our strong support for Egypt. United States security assistance not only aids President Mubarak in accomplishing needed economic reforms, but also allows Egypt to better defend itself and to assist the United States in protecting our mutual interests in the area.

INDIA-PAKISTAN-AFGHANISTAN SUBREGION

The recent flare-up of the Jammu-Kashmir border dispute highlights the underlying tension and discord between India and Pakistan. Kashmir has been a regular irritant that is indicative of the perceived injustices engendered by partition and felt by both sides. While the current situation could lead to open hostilities, the new governments in both nations seem eager to avoid conflict and move in the direction of compromise. Last year they signed initial agreements on nuclear, cultural and counternarcotics issues. In addition, a number of long-standing concerns, including the ongoing and unresolved Siachen Glacier confrontation, have been addressed at the ministerial level.

Following the Soviet withdrawal, the conflict in Afghanistan has taken on the dimensions of a protracted civil war with sporadic and inconclusive fighting. Pakistan continues to provide essential support to the Afghan Interim Government (AIG) the Mujahedin and over three million Afghan refugees. Although the number of serious incidents along the Pakistan-Afghanistan border has declined, the periodic firing of SCUD missiles into Pakistan (the latest exploding 20 miles from the capital) are an indicator of this civil war's potential to spill over into neighboring areas.

PAKISTAN

Strategically located between the Soviet Union, Iran and India, Pakistan provides key support to United States regional initiatives. Its continuing influence with the Mujahedin and its access to key Iranian leaders make it an important player in determining the ultimate course of events in both Afghanistan and Iran. Throughout the 1980's, Pakistan's highly professional armed forces have relied heavily on United States assistance for essential force modernization. Our program encourages confidence in conventional defensive capabilities against regional threats through the acquisition of modern weapons, thus reducing the perceived need for nuclear capability. The success of this approach was evidenced by Prime Minister Bhutto's declaration that Pakistan has no programs that could violate the Nuclear Non-Proliferation Treaty. The United States government has recently recertified, in compliance with the Pressler Amendment, that the country does not possess a nuclear explosive device.

By enhancing military capabilities and self-confidence, the U.S. security assistance program bolsters the Pakistan Armed Forces. The outstanding professionalism of this force has been evidenced many times since the death of President Zia, and it has been seen by many as a key factor in ensuring the stability necessary to allow an emerging, fragile democracy to mature and prosper. We should continue to provide security assistance at current levels while seeking innovative ways to enhance our close military-to-military relationship.

AFGHANISTAN

A year ago, it was widely believed that the withdrawal of Soviet forces from Afghanistan would lead to the imminent fall of the Najibullah government in Kabul. This has not been the case as the Soviets have provided massive arms aid to prop up the Afghan government's defense of the major cities. The Mujahedin, who are experts in guerrilla warfare, have not been successful in conventional attempts at taking control of the major population centers, where attacker to defender ratios have been significantly in favor of Najibullah's troops. The Mujahedin remain highly successful in their guerrilla tactics and control a majority of the countryside while continuing to press the interdiction of the large influx of Soviet arms. These tactics are characteristic of the Mujahedin who will continue to fight to ensure their freedom, their individualistic way of life, and to overthrow of the Soviet-sponsored Najibullah regime. This will only be possible if we continue to supply the Mujahedin with necessary arms, as one thing is certain—the side that loses its military support first will lose the war.

Any effective solution to this civil war will require the establishment of some form of government, free from direct outside influence. Such a government must be able to guarantee individual freedoms and be acceptable to all major parties including the Mujahedin field commanders and Afghan tribal leaders.

The U.S., UN, and other national and international relief agencies are helping Afghans begin the massive rebuilding effort that will be required when the war does end. In some areas, such as health and education, considerable progress has already been made. To respond to the special challenge they will face when returning home, over seven thousand Afghans have been trained by USCENTCOM military personnel in mine awareness and deactivation under the auspices of the UN's Operation Salaam. However, considerable support will be required to rebuild electrical power networks, roads, and other essential national support infrastructure. The United States must continue its support for the programs that are assisting Afghans now, encourage continued support by other countries and international organizations, and work with the Afghans to build a solid foundation for future social and economic recovery.

RED SEA-GULF OF ADEN SUBREGION

The Red Sea waterway and its crucial choke points are the center of United States interests where Africa and Asia converge. Yet, the Soviet Union has firmly entrenched itself on both sides of the Bab el Mandeb choke point by providing unprecedented levels of arms and advisors to Ethiopia and People's Democratic Republic of Yemen (PDRY) Through this relationship, the Soviets have gained direct military benefits in the form of basing rights and access. In return, the Soviets have provided these two nations the capability to interdict shipping and to threaten their more moderate neighbors. Recognizing the strategic importance of this area, the United States is working to improve its relationship with Yemen Arab Republic through a security assistance program and increased military-to-military cooperation. Any conflict in this volatile sub-region could spill over national boundaries and effectively close the Bab el Mandeb to Free World shipping. As in the Persian Gulf, the United States might then be required to commit military forces to protect United States commercial shipping and guarantee freedom of navigation. The United States should take a proactive stance in this subregion to develop cooperative relationships that will provide us with the access necessary to protect our vital interests.

YEMEN ARAB REPUBLIC (YAR)

While YAR's location adjacent to the vulnerable Bab el Mandeb is militarily significant, its economy has never been able to support the development of a military infrastructure capable of meeting the country's defensive needs. As a result, YAR has accepted foreign financial aid, equipment and advisory assistance to develop its armed forces.

Although most of YAR's military hardware has come from the Soviet Union, a small, yet highly successful United States security assistance program, with Saudi Arabian support, has given YAR an alternative to dependence on the Soviet Union. While the United States should not compete with the level of Soviet assistance, we should at least maintain the United States equipment that is currently in the

Yemeni inventory, provide related training and respond to requests for moderate military assistance. Five years ago the United States military assistance program peaked at $5 million. Since that time, while YAR has undertaken significant steps in nation-building and struggled to improve its economy, the United States has reduced its support.

This reduced security assistance funding, ($501K in fiscal year 1990) has hampered any significant progress in building our military-to military relationship. Even our current logistics and tactics training programs and the highly successful English Language Training Detachment can only be continued through fiscal year 1991. Indicative of this problem is the need to repair YAR's three Broadsword patrol boats. These craft, when operational, will allow the government to patrol the approaches to the Bab el Mandeb. With $3.5M in security assistance funding, the United States would be able to assist YAR in repairing the Broadswords, thus allowing the government to meet its legitimate need for coastal surveillance and patrol of adjacent waterways. Despite the reduced United States funding and Soviet enticements of military equipment and training programs, YAR continues to express a desire for closer relations with the U.S. For a modest increase in security assistance, we can advance the United States-YAR relationship, counterbalance Soviet influence and improve our ability to protect United States vital interests.

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN (PDRY)

The Marxist state of PDRY occupies the strategic southeastern tip of the Arabian Peninsula at the Bab el Mandeb. Continued arms deliveries, including surface-to-surface ballistic missiles, and a significant Soviet presence are clear indications that the Soviet-PDRY relationship remains strong. Access to air and naval facilities in PDRY gives the Soviets a vital forward base for rapid deployment, extends the operational capability of their navy, and enables them to threaten closure of the Bab el Mandeb. For years, PDRY has been a destabilizing influence in the region, as evidenced by repeated border skirmishes with Saudi Arabia, Oman and YAR.

Despite its dependence on the Soviet Union, PDRY has recently expressed a desire to reestablish relations with the United States, thereby reducing its political isolation. Moreover, the recent YAR-PDRY unity initiatives, which have support on both sides of the border, have gone a long way toward beginning the process of normalizing relations between these two countries. The United States should encourage a continued dialogue with PDRY to reduce tensions and enhance regional stability.

SOMALIA

Somalia's bloody and inconclusive insurgency continues. For its part, the United States has taken measured actions to encourage the Somali government to seek peaceful solutions to the conflict and to improve its human rights practices. For example, last summer we cancelled an important combined exercise, and we recently initiated a significant drawdown of personnel and military programs. In the face of these actions, Somalia has approached countries across the political spectrum in a bid to obtain the economic support and arms it perceives it needs. Thus far, Libya has provided the most positive response to Somali overtures.

Access to facilities in Somalia continues to be a part of USCENTCOM's regional strategy. Maintaining a United States military presence in Somalia and continuing our military relationship, even if security assistance is confined to non-lethal items, allows us to maintain valuable contacts, counterbalances the growing relationship between Somalia and Libya, and helps Somalia maintain its political and territorial integrity.

DJIBOUTI

Djibouti is a valued friend in the strategic Horn of Africa. The access it offers to port and airfield facilities, the cooperation it extends to our naval forces when in the Red Sea, and the presence of French ground, air and naval forces make Djibouti an important factor in the regional stability equation. Its pro-Western government faces domestic economic disorders and a considerable refugee problem imposed by its geographic location between two larger countries, Ethiopia and Somalia, that have severe internal problems. Our modest security assistance program with this key regional nation will continue to return substantial dividends.

KENYA

For years Kenya has been a showcase of stability with its pro-Western government cooperating with the United States on a broad range of military issues. Mombasa is the only major port available to the United States on the East African coast capable of accommodating battle group-size ship visits. Recently, however, internal instability engendered by emerging refugees and rebel forces from Somalia are becoming major concerns for the government. Additionally, Kenya's internal stability has been increasingly threatened by large bands of heavily armed poachers, frequently from outside its borders. If unchecked, these poachers could threaten Kenya's economic livelihood. Often, these poachers are better armed and equipped than government security forces. To combat these threats, Kenya needs equipment and training assistance that focuses on mobility and rapid response.

Because of our long-term friendship and its increasing internal difficulties, Kenya places great emphasis on its security assistance relationship with the U.S. The focus of our joint efforts has been to provide needed defensive capabilities and, through engineering assistance, to improve nation-building infrastructure. Our continuing security assistance will help Kenya to maintain the stability it needs to preserve its democratic institutions and overcome pressing economic difficulties.

ETHIOPIA

For over thirty years, Ethiopia has been involved in an internal war that has virtually destroyed the country's economic infrastructure. Despite billions of dollars in Soviet aid and support from thousands of Cubans, the Ethiopian government has been unable to defeat the insurgents. During the past year, Eritrean and Tigrean forces have won major victories in the northern provinces, exacting a large number of casualties and provoking numerous desertions from the government's forces.

These insurgent victories and Western pressure led to shifts in Ethiopian practices and policies. The regime had agreed to open discussions with its adversaries, and in late summer 2,500 Cuban combatants left Ethiopia and returned home. In August, the Ethiopian government was most cooperative in assisting United States efforts during the search and rescue operation for Congressman Leland and party. Recently, however, renewed insurgent fighting in Northern and Central Ethiopia has placed Mengistu in his most difficult military position to date. As a result, the continued weakening of the regime has fueled regional instability. Any Ethiopian initiatives to peacefully defuse this situation should be welcomed by the United States and viewed as an initial step toward reestablishing a positive bilateral relationship.

SUDAN

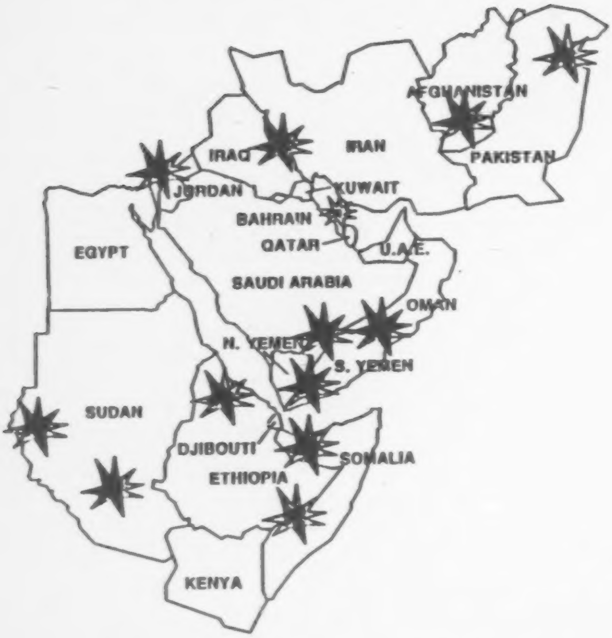
Sudan, the largest country in Africa, is located on the frontier between the Arab World and Sub-Saharan Africa. Astride the Nile, Sudan has the potential to adversely impact the economic lifeblood of Egypt and thus disrupt regional stability. In June 1989, Sudan's military, frustrated by the lack of progress in resolving economic and political problems and ending an insurgency, overthrew the democratically elected government of Sadiq Al Mahdi in a bloodless coup. The military coup produced a pro-Egyptian regime that also appears ready to establish closer military and economic relations with the U.S.

While improved relations with the U.S. may be desirable, U.S. sanctions, enacted under Section 513 of the Foreign Operations Appropriations Act in response to the overthrow of the democratically elected government, make Sudan ineligible for military and economic assistance. The new government, like its predecessor, has been unable to end the prolonged insurgency. Faced with seemingly insurmountable internal problems, the Sudanese government has agreed to hold peace negotiations with the Sudanese People's Liberation Army (SPLA) and to resume badly needed relief flights. Although too early to predict the results of these actions, they are positive steps in the peace process. During this difficult period, we will monitor Sudan's progress and take positive steps when appropriate to assist the country in achieving our mutual goals of internal peace and regional stability.

THREAT

The threats to U.S. interests in our AOR exist on three levels. The most probable near-term threat involves regional conflict fed by an increasingly lethal arms race. Additionally, we face the challenge of countering increasing Soviet influence as they actively pursue their strategic interests in the region. Finally, the threat of international terrorism is present since the AOR is home base for over 60 terrorist groups.

REGIONAL CONFLICTS



Regional conflicts, with the potential to spill over and directly involve U.S. military forces, are the principal threat to U.S. interests in our AOR.

Although Israel lies outside USCENTCOM's AOR, the longstanding Arab-Israeli dispute exerts a dominate influence in our relations with states in the region. The United States and our friends have done much diplomatically to find a peaceful solution to the Arab-Israeli dispute, but a lasting peace remains a distant goal. A resolution of this prolonged confrontation would do more to guarantee peace and stability in the region than any other event or combination of events.

Although Iran and Iraq agreed to a cease-fire in August 1988, no peace treaty has been signed. This no peace-no war situation has caused both sides to pursue rearmament programs. While each nation is purchasing more lethal weapons, the balance of power is dramatically in favor of Iraq. Regionally, Iraq is now the preeminent military power in the Gulf, and it is assuming a broader leadership role throughout the Arab world. Iraq has the capability to militarily coerce its neighboring states should diplomatic efforts fail to produce the desired results. Meanwhile, a radical element continues to influence internal Iranian politics—despite sporadic indications that President Rafsanjani would prefer a more moderate and open course in foreign affairs in order to speed Iran's economic recovery. Iran's Navy and Revolutionary Guard remain strong, and could again threaten shipping in the Persian Gulf. Recent Iranian naval and amphibious exercises have demonstrated their offensive power projection capabilities. Also, Iran's SILKWORM anti-ship missiles provide a limited capability to close the vital Strait of Hormuz. In sum, the Iran-Iraq cease-fire ensures neither peace nor stability in the Gulf. The expanding regional arms race and longstanding rivalries, which were not eliminated by the cease-fire, remain potential causes for conflict.

The Iran-Iraq War is largely responsible for the accelerated pace of arms development and proliferation of missiles in the region. The war demonstrated growing acceptance by both sides of the use of chemical munitions as antipersonnel weapons. Iraq now has a sizable stockpile of chemical munitions and, in response, both rivals and more moderate neighbors perceive a need for similar weapons as deterrents. While not as widespread, several regional states are also conducting advanced biological warfare research and development.

During the war, ballistic missiles were used on undefended populations. Iran and Iraq, along with several other states in the region, are now actively engaged in a missile arms race which can threaten the military balance in Southwest Asia. The recent test-launch of an Iraqi missile designed to place a payload in earth orbit is only the latest example of their developing capability. The resulting proliferation of these advanced weapons heightens the likelihood and lethality of war in the region.

On a lesser scale of intensity, territorial disputes dot the region, particularly the Arabian Peninsula. The Hawar Islands have been the subject of disagreement between Bahrain and Qatar since the 1930's. Further south, People's Democratic Republic of Yemen (PDRY) disputes its borders with Saudi Arabia, Yemen Arab Republic (YAR) and Oman. Border clashes between PDRY and Oman have occurred as recently as October 1989. Future incidents are likely as long as these territories remain in dispute.

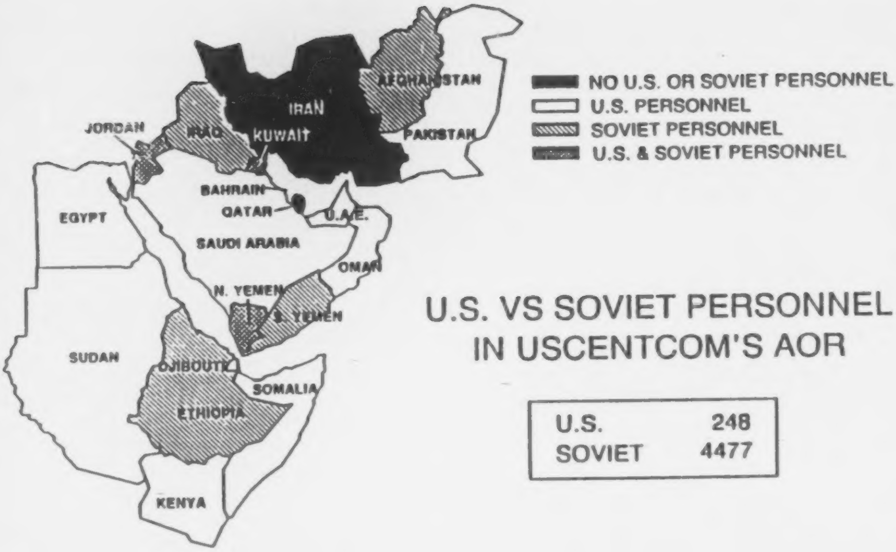
On the African continent, tensions between Ethiopia and Somalia over the disputed Ogaden region that led to war in 1977 are still present, and armed conflict between the two countries could reoccur. Internal insurgencies continue to plague Sudan, Ethiopia and Somalia. Human rights violations in Sudan and Somalia, and the accompanying coup in Sudan, have triggered restrictions on U.S. aid. Libya's Colonel Qadhafi has subsequently attempted to influence events by providing arms, oil and economic assistance to both Sudan and Somalia. Libya also uses Western Sudan's Darfur Province as a staging area to support Chadian insurgents. The region has been the site of conflict between Chadian government forces and insurgents who seek refuge there.

India and Pakistan represent another potential source of conflict. These countries have fought three wars since their formation in 1947, and seasonal skirmishes continue in the Siachen Glacier and Kashmir border region. The recent turmoil in the Jammu-Kashmir border region has raised tensions in both countries and is exacerbated by domestic politics. Direct talks could defuse the current crisis, but neither party can afford to appear as the supplicant. While neither India nor Pakistan want a wider conflict, a misstep could plummet the two into another general war in the near term.

Finally, despite the Soviet withdrawal, Afghanistan remains embroiled in a protracted civil war between the Mujahedin resistance and the communist Najibullah regime. A massive resupply effort by the Soviets, costing them an estimated $250 million per month, has enabled the regime to hold on to the major cities. Meanwhile, the Mujahedin, hampered by religious and tribal differences, have yet to exercise the level of cooperation and cohesion necessary to mount a coordinated, nationwide campaign. To their credit, however, the Mujahedin do control the vast majority of the countryside and are pursuing a more unified political and military strategy.

INCREASING SOVIET INFLUENCE

The primary objective of Soviet foreign policy is to prevent any region contiguous to its borders from serving as a base for activities directed against the motherland. Interest in reducing American presence in and access to the region will remain paramount. The Soviets also face the challenge of minimizing the disruptive influence of separatist and radical movements in their southern republics. They will likely emphasize political solutions and deemphasize confrontations to improve their standing among the Persian Gulf moderates and, thereby, enhance their interests. Through patient, persistent diplomacy the Soviets have successfully engineered incremental improvements in relations with several regional states.



U.S. VS SOVIET PERSONNEL IN USCENTCOM'S AOR

U.S.	248
SOVIET	4477

Bolstered by an extensive program of arms sales and security assistance, Soviet military technicians and advisors in the region outnumber American personnel by better than 18 to 1. In the Middle East, where face-to-face interpersonal relations are so critical to success, this overwhelming Soviet presence translates into increased influence. This may already account, in part, for the establishment of Soviet diplomatic relations with Oman and the United Arab Emirates (UAE) in 1985 and with Qatar in August 1986. During the last year, the Soviets made substantial inroads in repairing their relations with Egypt, and resumed sales of military-associated equipment. Equally disturbing, the Soviets have made considerable progress in renewing relations with Iran. Moscow has promised Teheran defensive systems to rebuild its decimated military and has negotiated to help rebuild war-damaged industries.

As a backdrop to increasing Soviet influence, Soviet naval forces, including the flagship of the Soviet Indian Ocean Squadron, maintain a substantial presence in the area despite the Iran-Iraq cease-fire. The majority of Soviet naval assets are concentrated near the Bab el Mandeb and the Strait of Hormuz, two of the region's major choke points. In the Persian Gulf Soviet naval presence provides protection for their arms carriers and for Kuwaiti-chartered Soviet tankers.

TERRORISM

The threat of international terrorism continues to be one of the most serious problems facing the U.S. and the countries of USCENTCOM's AOR. The majority of all state-sponsored terrorist incidents worldwide occur in this region, where over 60 terrorist groups now operate. Terrorist acts, whether to reduce U.S.influence or as a by-product of regional conflict, will continue to be employed by radical groups who lack military power or constructive channels for political expression.

Many terrorist groups are influenced and supported by state sponsors, notably Iran, Libya and Syria. Radical Palestinian groups, like the Abu Nidal Organization and the Popular Front for the Liberation of Palestine-General Command, continue to rank among the most deadly and capable groups that operate and train in this region.

NATIONAL AND REGIONAL OBJECTIVES

The national security strategy of the United States has been developed with one basic goal in mind—to keep America free, and its fundamental institutions and values intact. Fulfilling this goal requires a broad plan designed to achieve both global and regional objectives. Our primary national security objectives are well defined: to increase U.S. influence around the world; to further an atmosphere conducive to democratic progress; and to protect free commerce and ensure U.S. access to world markets, associated critical resources, the oceans and space; and to deter military attack against the United States, its allies and other important countries; and to ensure the defeat of such an attack should deterrence fail.

President Bush has reaffirmed America's commitment to protect its vital regional interests throughout Southwest Asia. USCENTCOM's task is to assure sufficient military capability is available to achieve the national security objectives and fulfill the requirements of our regional commitment. Accordingly, USCENTCOM's objectives are: to ensure continued access to Arabian Peninsula oil; to maintain an effective and visible U.S. presence throughout the region; to assist friendly states to improve their own defensive capabilities; to prevent the military coercion of friendly states; and to deter or, if necessary, counter aggression directed against vital U.S. interests.

Using national and regional security objectives as the guide, USCENTCOM has developed a theater strategy that recognizes the importance of the region, considers its unique problems and addresses the global and regional threats.

THEATER STRATEGY

The unprecedented changes in international relations during this past year have generated a review of United States objectives and strategy for all areas of the world. Changes in the Soviet Union and Eastern Europe offer significant opportunities for reducing East-West tensions. While these changes are hopeful signs of a better future, many promises are yet to be fulfilled and any results will not apply equally around the globe.

While the improved relations between the Soviet Union and the United States have reduced the threat of a global war, the same is not true for regional conflict. In fact, the possibility of a regional conflict may actually increase as tensions, previously overshadowed by the East-West confrontation, emerge. The growing international interdependence, the common need for access to critical resources, the proliferation of modern weapons, the increase of non-national actors (terrorist groups, drug cartels, and international corporations), and the resurgence of nationalism and religious fervor create opportunities for rapid change, friction and possible conflict.

Recognizing this potential for rapid change in the future, USCENTCOM's strategy is flexible and adaptable. It consists of three mutually supporting strategies—peacetime, regional contingency and global warfare. The central purpose of all three strategies is to deter attacks on our vital interests or on friendly states by credibly demonstrating U.S. commitment to a common defense and regional stability. By increasing the defensive capabilities of our friends and improving our regional access, we decrease the potential for deliberate or accidental conflict. Though prudence requires a wartime strategy that addresses the potential for a global war with the Soviet Union, USCENTCOM has placed special emphasis on the command's peacetime and regional contingency strategies.

PEACETIME

Elements of our peacetime strategy follow: build pro-Western coalitions; demonstrate U.S. commitment; counter Soviet influence; and improve regional access.

Presence, combined exercises, and security assistance form the pillars of our peacetime strategy.

Presence is the visible symbol of America's continued interest in and concern for the region. It is more than just military forces. Humanitarian assistance programs, conferences, training programs and exchanges (in fact, almost anything that reinforces our desire for a mutually beneficial partnership) constitute presence and are key factors in maintaining close relations with our friends throughout the region. It is within this context that our deployed forces operate during peace—meeting with governmental representatives, promoting regional cooperation and stability, and demonstrating U.S. resolve to protect vital regional interests. The Joint Task Force Middle East (JTFME) is the most visible symbol of America's regional presence, while its Earnest Will ship protection operations symbolize our ability and willingness to honor commitments.

Combined exercises serve to demonstrate our resolve and help increase both presence and access to regional facilities. These exercises: strengthen United States/host-nation military-to-military relations; provide U.S. forces an opportunity to visit and become familiar with the peoples and countries in the AOR; bolster host-nation confidence in America's ability to support regional stability; provide opportunity for USCENTCOM to evaluate the readiness of apportioned forces; and improve the ability of all forces to work together in a coalition environment.

Exercises assume an added importance as a means of maintaining military-to-military relationships with states whose security assistance funding has been reduced or curtailed. Funding for combined exercises must be maintained and, when prudent, increased to moderate the impact of reduced security assistance and serve as a clear signal of U.S. commitment and resolve.

Security assistance funding, accurately targeted, can provide the most visible and lasting impression of U.S. presence and commitment, while opening avenues for increased access to the region's resources and facilities. This funding not only provides the means for nations to improve their own defensive capabilities, but also lowers the potential for U.S. forces to directly intervene in regional crises. At the same time, it bolsters U.S. employment and industries through military and non-military sales. There is still work to be done in developing security assistance funding and arms supply arrangements that are consistent, supportive and credible.

REGIONAL CONTINGENCY

Elements of our regional strategy follow: deterrent actions; deploy forces rapidly; rely on host-nation support; fight in coalition warfare environment; and terminate conflict early.

Our regional contingency strategy builds on the peacetime strategy to provide an extensive range of flexible, measured responses to regional aggression. This approach strengthens deterrence by preventing a potential aggressor from predicting our reaction and what price he would pay for breaking the peace. If deterrence fails, this same flexibility would provide appropriate options to respond to any crisis. In all cases, emphasis is placed on coalition warfare where our friends and allies assume their fair share of the responsibility for the region's defense and security. This approach allows us to concentrate on the actions necessary to reach a speedy and favorable end to any crisis.

GLOBAL WARFARE

Elements of our global strategy follow: ensure access to oil; operate successfully in coalition warfare environment; keep sea lines of communication open; and deny Soviet objectives.

Our global warfare strategy builds on the peacetime and regional contingency strategies, and is designed to meet requirements that would be encountered during a global confrontation with the Soviet Union. As in the regional strategy, its key elements are flexibility and coalition warfare. Considering the finite number of U.S. forces and the extensive requirements of a global war, USCENTCOM could be a secondary theater of operations and our success would require a concentrated effort by available U.S. forces with extensive reliance on our regional friends and allies.

Of necessity, these three strategies emphasize achieving objectives using the minimum force required and capitalizing on the combined effect of U.S. and friendly forces operating together. Clearly, whether for deterrence in peace or for achieving our contingency and wartime objectives, the active support, of our friends and allies is a critical element in securing our vital regional interests.

COUNTERNARCOTICS EFFORTS

USCENTCOM actively supports the National Drug Control Strategy. Our area of responsibility encompasses the "Golden Crescent" drug producing region (Afghanistan, Pakistan and Iran) which supplies approximately 25 percent of the heroin consumed in the U.S. Several other countries in the area serve as transshipment points in illicit drug distribution networks.

Our Command goals are to significantly reduce narcotics originating from our AOR and to assist each host nation in achieving self-sufficiency in the eradication of narcotics production and trafficking. These goals support the national objective of reducing the flow of narcotics into the U.S. To accomplish this, we assist other theater CINCs and directly support U.S. government agencies involved in counternarcotics efforts in our AOR. This includes providing communications, tracking, surveillance and intelligence. We are actively seeking additional approaches to counter this problem. Our efforts are limited, however, to the extent that no forward deployed forces, other than the small contingent associated with JTFME and our security assistance representatives, are on-the-ground in host countries.

Additional emphasis was placed on this important mission when Operation Native Trout began in June 1989. The first phase involved the formulation of assistance plans with embassy country teams and the building of an organization to achieve higher levels of support. Following this, USCENTCOM held a counternarcotics conference in September 1989 to coordinate regional counternarcotics efforts and to further develop the infrastructure and connectivity necessary to achieve our regional goals. We have organized, within our headquarters staff, a specific counternarcotics division to coordinate and direct our regional operations. We are now taking steps to establish positions within our overseas missions that will dedicate military personnel to work the counterdrug program.

We conducted our first operation in October 1989 when our Office of Military Cooperation in Cairo coordinated with Egyptian officials to obtain DOD assistance in tracking a suspected drug smuggling ship in the Eastern Mediterranean. On 4 November, the Greek motor vessel THANASSIS was boarded by Egyptian AntiNarcotics General Administration (ANGA) officers; 7,320 kilograms of hashish were seized and the crew arrested. Later, the drug trafficker behind this smuggling attempt was also arrested. This operation demonstrated the high level of cooperation which has been achieved between USCENTCOM, U.S. European Command, DEA representatives and the Egyptian drug enforcement agency.

For our program to succeed, we must build on this initial success. The full cooperation of regional states will be required. Host-nation acknowledgement of their important role in international efforts to eradicate drug trafficking and production, followed by a consensus to act, will complement U.S. actions to stem the flow of these destructive substances into our country. USCENTCOM will continue to aggressively pursue counternarcotics procedures, explore innovative ideas, and seek greater regional cooperation in support of our National Drug control Strategy. Strong Congressional support for this important U.S. initiative has been, and will continue to be, critical to the attainment of our goals in the region.

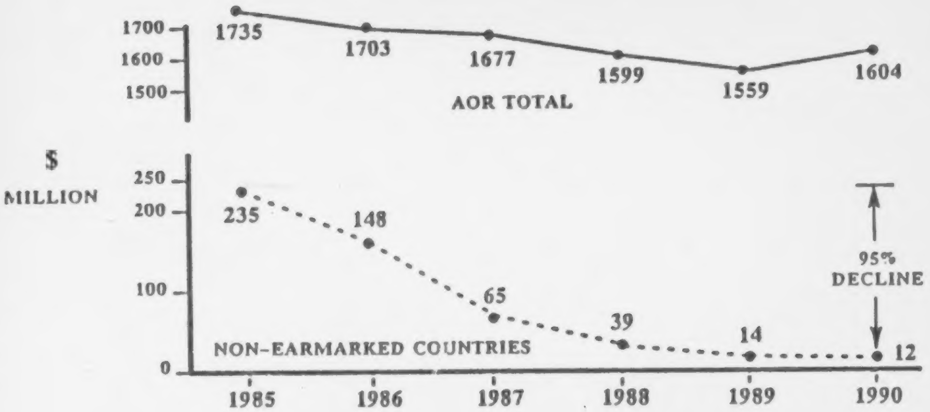
RESOURCES

SECURITY ASSISTANCE

Security assistance, essentially a military-to-military program, is a primary instrument for implementing USCENTCOM's theater strategy. The promise of a long-term security relationship with the moderate states of the region can only be realized when the United States is seen as a reliable partner in this effort. There is still work to be done in building security assistance funding and arms transfer arrangements that are perceived as consistent and mutually beneficial to the United States and its security partners.

Program reductions in security assistance funding since 1985 for non-earmarked countries have damaged our credibility as a reliable security assistance partner, and threatened both our regional access and overall military-to-military relationships. This situation is exacerbated by the "earmarking" of security assistance funds—causing some of our countries to bear a disproportionate share of the reductions. The effective termination of many security assistance programs has fostered the appearance that the U.S. is retreating from its regional responsibilities, and has allowed our allies as well as our adversaries opportunities to capitalize by stepping in to fill these gaps.

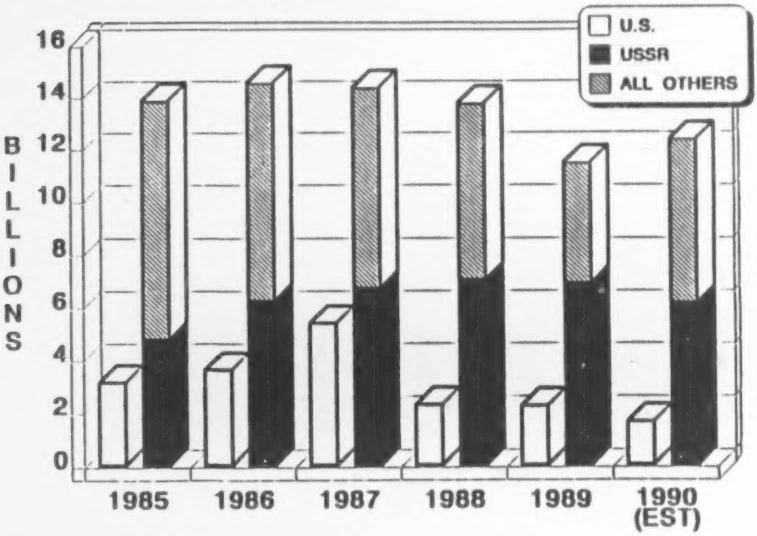
U.S. SECURITY ASSISTANCE FUNDING
USCENTCOM AOR



NOTE: "AOR TOTAL" LINE INCREASED DUE TO ADDITIONAL EARMARKED FUNDS FOR JORDAN IN 1990

During this period, earmarked funding has remained relatively constant while non-earmarked funds are down substantially. The funds currently available to several of the countries vital to our theater strategy do not provide for even their most basic military needs. Yemen Arab Republic is a perfect example. This nation is of critical importance to the control of the Bab el Mandeb Strait, yet it received only one million dollars in security assistance in fiscal year 1988, $500 thousand in fiscal year 1989, and $501,000 in fiscal year 1990. YAR has repeatedly requested U.S. assistance for repairing its Broadsword Patrol Boats—essential for patrolling the strategic waters around the Bab el Mandeb. The $501K allocated to YAR in fiscal year 1990 will only marginally sustain existing defense needs. This amount is not adequate to effect these critical boat repairs. CINCs, as the regional military experts, should be consulted early on and continuously throughout the security assistance allocation process. This consultation would provide for the distribution of funds to support our national and military strategies and avoid a repetition of the YAR situation.

FMS AND SECURITY ASSISTANCE DELIVERIES IN USCENTCOM AOR



Our restrictive arms transfer policies also call into question U.S. reliability. The political battles in the U.S. Congress that invariably accompany proposed arms sales to Saudi Arabia and other Gulf states have produced inconsistent and, for our Arab friends, frequently embarrassing results. Consequently, these states are turning increasingly to other sources. The Saudi Deputy Information Minister recently noted that Britain obtained Gulf states defense contracts totaling some $68 billion as a result of U.S. refusal to sell sophisticated arms. In Saudi Arabia, these purchases included 72 TORNADO all-weather attack fighters, bought following the U.S. refusal to sell the Kingdom 40 F-15E strike aircraft. Similarly, when the F-18 package for Kuwait was thought to be in trouble because of Congressional problems with MAVERICK missiles as part of the purchase, Kuwait's Prime Minister was quoted in the September 1988 edition of Defense Science as saying, "Don't be surprised when you read tomorrow, or next week, or next month that Kuwait has bought its military equipment from Moscow."

Another example is the buy-back provision of the STINGER antiaircraft missile sale to Bahrain which is still an issue. Although recent legislation postpones the problem until September of 1991, a resolution giving Bahrain sole ownership is required. Such provisions embarrass both the United States and the purchasing country by insinuating that we cannot trust a proven friend and that our own commitment is vacillating. Because of this, we should not be surprised if the Bahrainis begin to seek arms for their legitimate self-defense needs elsewhere.

In almost every case, when moderate Arab states turn to Western European nations, North Korea, China, or the Soviet Union, the weapons they acquire are accompanied with fewer constraints on employment than those available from the United States. Furthermore, acquisition of non-U.S. systems by regional states diminishes interoperability with the United States and makes it increasingly difficult to respond to regional contingencies. As a result, opportunities for the United States to play a role in escalation control or resolution of relatively small conflicts are reduced, and the chances for miscalculation, overreaction and a broadening of the conflict are increased.

Security assistance problems are reversible, however. The recently passed fair pricing legislation is a step in the right direction. This legislation will help stretch security assistance dollars and demonstrate U.S. commitment and concern for the defense needs of its friends. Additionally, we appreciate the increased fiscal year 1990 funding for Jordan as a demonstration of U.S. commitment.

Continued flexible funding initiatives must be pursued. For example, loosening the restrictions imposed by the Brooke-Alexander Amendment on International Military Education and Training (IMET) and the African Civic Assistance (ACA) programs would be a positive step. These are people-oriented and cost-effective programs in which a relatively small investment can yield significant benefits in international understanding, cooperation, and development of military-to-military relationships. By loosening the restrictions, the U.S. would have another avenue to help the leaders and populations of regionally important countries.

EXERCISE SUPPORT

Combined exercises represent a principal means of supplementing U.S. presence in the AOR, gaining regular access to areas without permanent U.S. bases, and establishing and maintaining military-to-military relationships. Exercises are essential for familiarizing USCENTCOM forces with the Middle Eastern/African environments, executing combined operations with host-nation forces, and for demonstrating U.S. commitment and resolve.

Small exercises are the first step in expanding relationships and are an effective starting point for countries allowing first-time access. As exercise levels increase, command relationships, technical complexity, and the size and importance of these exercises grow and ideally, culminate in a country's involvement in USCENTCOM's keystone exercise, BRIGHT STAR.

BRIGHT STAR provides the most challenging opportunity to train and test a large U.S. joint service force alongside the armed forces of host countries in the AOR. BRIGHT STAR 90 once again validated the critical role played by exercises in our strategy for this vital region, improved the understanding and conduct of coalition warfare, and enhanced interoperability between U.S. and host-nation forces. Key regional leaders were very enthusiastic about participation in this exercise and stressed the importance of continued U.S. support and presence. It is important to note that with the drawdown of U.S. forces in the Gulf and the reality of constrained security assistance budgets, combined exercises have become a primary means of maintaining our presence in the region. Exercise budgets are decreasing at the same time that our requirements for joint and combined training are increasing to meet command goals and objectives. Unless this situation is reversed, we will have to scale back or cancel some of our exercises for this year and upcoming budget years. Our commitment to our friends and resolve to support them will be questioned and our ability to maintain a viable presence in the region may be curtailed. Finally, our ability to meet command and national objectives in this vital area of the world will be hindered.

TITLE 10 FUNDING

The nations of the USCENTCOM AOR vary widely in their economic ability to support their armed forces. Because of severe financial difficulties, some countries cannot possibly participate in combined exercises without harming other essential programs. Title 10 funding supports the exercise programs of these countries, while directly benefitting the USCENTCOM exercise efforts:

—Section 2010 (Participation of Developing Countries in Combined Exercises: Payment of Incremental Expenses) enhances exercises by providing supplies (food, fuel, ammunition, etc.) to our exercise partners or directly replacing their stocks. This support is often critical to countries with minimal stockpiles.

—Chapter 20 (Humanitarian/Civic Assistance) allows U.S. forces participating in combined exercises to help the civilian populace by authorizing humanitarian construction projects (such as water wells) and providing medical treatment and supplies. These efforts improve relationships with people outside the military while providing realistic training for U.S. forces. Last November for example, in Jordan, United States Air Force medical teams treated approximately 3,000 children and adults, providing TB screening, immunizations, dental treatment, and outpatient medical care. U.S. Army engineers supporting an airfield construction project in Kenya took the time to drill and install a well at Bargoni, a small village on the frontier. Prior to our efforts, villagers travelled two kilometers each way to carry water for their families and livestock. Thanks to this project, the people have a water source in the center of their community.

—Section 1051 (Bilateral or Regional Cooperation Programs/Payment of Personnel Expenses) provides the capability to bring foreign defense personnel to the U.S. in order to plan and observe large-scale exercises and tactics. We encourage making this authority permanent as a means of improving our planning efficiency.

By linking these programs to USCENTCOM exercises, we enhance the image of the U.S. and gain critical access within the region. Furthermore, we demonstrate our willingness to provide assistance as a coequal partner. Continued funding for these important programs is essential.

EXERCISE-RELATED CONSTRUCTION (ERC)

The Exercise Related Construction (ERC) Program is highly successful throughout the region. As part of our exercise program, ERC provides excellent engineer training under the demanding environmental conditions in our theater, improves military-to military host-nation relationships, and assists in developing and maintaining an effective theater logistics infrastructure. In every country visited during BRIGHT STAR 90, host-nation officials were visibly impressed with our ERC activities. We improved airfields, built storage facilities, constructed an assault airstrip and training ranges. For the comparatively small investment required for this program (USCENTCOM's share for fiscal year 1990 was less than $1.5M), we receive tremendous benefits in the form of increased exercise effectiveness, enhanced host-nation support, and reduced requirements for airlift and sealift. Your continued support of this cost-effective program clearly demonstrates U.S. interest, commitment and resolve.

PERSONNEL

The quality force of men and women assigned to USCENTCOM is the consistent key to our mission accomplishment. This command strongly supports all OSD and Service pay, entitlement, quality of life programs, and initiatives directed at attracting and retaining the high caliber personnel which our mission demands and our country deserves.

Your support of our service members and their families living in unfamiliar environments throughout Southwest Asia is extremely important. Programs such as the Armed Forces Radio and Television Network and the Television Video Tape programs afford a valuable link to western news and culture. Because of Congressional support, funded environmental and morale leaves are now available for service members and their families who are assigned for two years or more to countries with security assistance organizations. These programs are essential to morale and mission accomplishment.

READINESS

The active combat units of all services have no significant readiness problems which preclude them from accomplishing their assigned mission. Our readiness concerns continue to be with Army non-divisional support units in the Reserve Component. Because of your past support, substantial progress has been made in Army personnel, training and equipping programs which have improved force readiness. Your assistance in resourcing at the level requested by the Army is essential to ensure that recent gains are maintained and improvements are realized.

LIFE

USCENTCOM relies heavily on strategic lift to meet its commitments in Southwest Asia. Sufficient strategic sealift exists to support our existing regional plans. It is important to note however, that America's declining national sealift capability could jeopardize our future ability to deploy, employ and sustain any sizable reinforcements in response to a regional contingency. If not reversed, this continuing erosion of sealift capability will reduce USCENTCOM's overall deployment flexibility. Continued support for the national sealift policy is needed to alleviate the systemic problems that are contributing to the overall decline of the Merchant Marine fleet.

Existing strategic airlift supports our current regional contingency plans. However, we must prudently manage the modernization of our airlift fleet and ensure that C–17 production continues on track to replace the aging C–141 fleet. For this reason, meeting our future airlift requirements hinges on timely production of the C–17.

MILCON

Congressional support for our military construction (MILCON) program is essential. In light of current fiscal realities, we fully understand Congressional desire to obtain firm access agreements prior to programming construction funds. As in the past, however, we ask that you recognize the uniqueness of USCENTCOM's AOR and provide us the flexibility necessary to take advantage of opportunities affecting our national interests. We will program military construction based on essential operational needs while making maximum use of existing facilities throughout the region. Host-nation access agreements may not always be in place at the time of MILCON submittal, but only those projects which we are confident can be executed will be recommended to you.

PRE-POSITIONING

The ability of USCENTCOM to respond rapidly to crises in our AOR is dependent upon theater pre-positioned war reserve material (WRM). Pre-positioning reduces our dependence on strategic lift, enhances our ability to employ forces rapidly and demonstrates U.S. presence and commitment.

The viability of the pre-positioning program was recently validated during BRIGHT STAR 90. Use of these assets lowered costs by reducing our airlift and sealift requirements and simultaneously enabled the consumption of perishable stocks. During BRIGHT STAR 90, we thoroughly exercised the bare base assets and successfully tested essential reconstitution procedures.

We are now in the process of reevaluating and validating our pre-positioning requirements. Initial studies indicate that some pre-positioning requirements can be reduced, while shortfalls will continue in selected commodities. Last year, we were able to place an additional 3,000 tons of supplies and equipment in our AOR to meet these shortfalls. USCENTCOM continues to emphasize prepositioning as a critical warfighting requirement.

SUSTAINABILITY

Sustainability provides the supplies and equipment to sustain combat operations until the resources of the nation can be mobilized. From a regional strategy perspective, we do not have any significant sustainability shortfalls. However, unique SWA programs, such as tactical fuel distribution systems and Logistics Over The Shore (LOTS) are particularly important in our area where ports, harbors, pipelines and roadways are relatively austere, undeveloped, lack redundancy and are easily interdicted. For instance, LOTS is a required capability that will provide the flexibility to reduce risks of port denial and waterway mining operations. Improvements in fuel posture will require additions to pre-positioned stocks and support of the Services' Southwest Asia Petroleum Distribution Operational Project (SWAPDOP) Additionally, water support programs that produce, purify, store and distribute, as well as treat contaminated water are vital in an arid environment. Congressional support of each of the Services' sustainability programs is the key to maintaining these essential combat support capabilities.

COMMAND AND CONTROL

Although command, control and communications throughout USCENTCOM's AOR remain extremely austere, long-awaited improvements are being delivered and fielded. The Defense Communications System for USCENTCOM's AOR, consisting of air transportable tactical equipment, is nearing completion. However, only a small portion of this vital system will be in place and operational within the theater due to host-nation access limitations; the remaining equipment must remain U.S.-based or pre-positioned. Until the Defense Communications System-Central Area is fully fielded, we will require innovative and ingenious communications work-arounds to ensure essential command and control so vital to mission success in our peacetime, regional contingency and wartime strategies.

INTELLIGENCE

The nature of the USCENTCOM AOR presents a difficult challenge. The great distance to the AOR and the shortage of in-theater infrastructure strongly influence the type of intelligence capabilities we seek. We are improving intelligence support potential through increased management effectiveness and new systems. We believe that we can provide timely and reliable intelligence for application across our entire spectrum of responsibilities.

In fiscal year 1990 we will complete installation of a new imagery receipt and processing system which will provide imagery intelligence results within hours of an event. A high quality secondary imagery system, combined with the Scalable Transportable Intelligence Communications System (STICS) will move imagery and data to operational levels within minutes.

The Deployable Intelligence Data Handling System (DIDHS) also to be fielded in fiscal year 1990, will greatly increase our ability to manage, store, and manipulate large amounts of intelligence information. This is essential for quick analysis and dissemination of intelligence data to all users.

We have been successful in coordinating technical and attache collection support from the national level. We fully support national-level efforts to automate the collection management process so that unified commands will have a stronger and more direct voice in the intelligence-gathering process. We continue to seek remotely-piloted vehicles (RPVs) to provide on-scene operational flexibility. Long endurance multi-sensor RPVs are an excellent means of providing the additional fine-grain detail required by combat or high-intensity contingency operations.

Finally, we have developed the management procedures and communications connectivity necessary to ensure that our components can fully contribute intelligence relating to our AOR. This federated production structure, electronically internetted and automated, will provide an increased level of capability which will benefit all users of intelligence in our AOR. Continued congressional support is essential to the successful completion of these programs.

SUMMATION

Strategic oil reserves, the region's strategic location and the region's critical sea lines of communication make USCENTCOM's AOR vital to the security of the United States and its allies. While the threat of direct Soviet military intervention has decreased, Soviet political, economic, and military assistance activity is increasing and constitutes a continuing threat to our interests. Regional conflicts, rooted in interstate dynamics, are numerous. Many of these conflicts have the potential to threaten U.S. interests in the area and could result in the commitment of U.S. military forces. To best ensure the presence, access and the mutual coalitions necessary to counter regional threats and Soviet initiatives, we must continue to build our friends' confidence in our commitment to their security. The U.S. must maintain a prudent military presence in the region, support the legitimate defense needs of our friends through arms sales and adequate levels of security assistance, and pursue a comprehensive program of joint/combined military exercises. USCENTCOM has accomplished much during the past year to demonstrate our steadfast and long-term commitment to the security of Southwest Asia. With sustained congressional support, we will continue to demonstrate United States commitment into the 1990's.

RECENT HISTORICAL PERSPECTIVE

For centuries, Southwest Asia has been a crossroads for trade, a target of conquest and a locus of conflict. Over the course of the last two decades, the U.S. has been called upon to respond militarily to an increasing number of disruptive events in the region. The growing dependence of the U.S., its allies and friends on Persian Gulf oil has focused our attention on the geostrategic importance of this region. When coupled with unpredictable yet continuing regional instability, there is a high probability that a continuing U.S. military presence will be required in Southwest Asia. To understand current U.S. policy, it is important to examine three key policy decisions that form the basis for our present role: the Nixon Doctrine, the carter Doctrine and the Reagan Corollary.

NIXON DOCTRINE

The 1969 Nixon Doctrine stated that the UNITED STATES would provide military and economic assistance to any nation whose freedom was threatened, but the nation would be expected to assume primary responsibility for its own defense. Throughout the 1970's, the Nixon Doctrine was supported by a "Twin Pillars" policy, whereby Iran and Saudi Arabia, bolstered by military assistance from the U.S., provided for their own defense. For a time, Iran's military might and Saudi Arabia's economic and political leverage favorably influenced the region, thus maintaining stability in the area and deterring Soviet adventurism.

Following the 1973 Arab-Israeli war, however, the "Twin Pillars" policy received its first significant challenge. The Soviets were taking the initiative to increase their presence on the region's periphery with the establishment of bases in Somalia and an increased Soviet naval presence in the Indian Ocean. At the same time, the energy crisis created by the Arab oil embargo and the risks of overdependence on imported Arab oil substantially raised the level of concern in America. Japan and Western Europe, with oil as their main energy source, also felt particularly vulnerable. This dependence, coupled with significant oil price hikes in 1974 and 1978, made the region more susceptible to attack by hostile forces from both within and outside the region.

In 1974, the United States responded with independent actions directed at buttressing the ability of Iran and Saudi Arabia to maintain regional stability. The effort focused on maintaining a U.S.presence in the Indian Ocean, giving the U.S. the ability to rapidly project combat forces into the Gulf.

In 1977, conflict engulfed the Horn of Africa when Somalia invaded Ethiopia. This crisis emphasized serious flaws in President Nixon's reliance on a "Twin Pillars" approach as the principal U.S. focus for the region. Soviet support of their newfound ally, Ethiopia, provided a setback for the policy aimed at excluding Soviet influence in the region. The Soviets established a Red Sea base at Dahalek Island, thereby flanking the West in the Horn of Africa.

The 1979 fall of the Shah of Iran and the Soviet invasion of Afghanistan represented seminal events in the United States—Gulf Arab relationship. The United States and its friends in the Gulf found themselves searching for a security posture that would effectively deal with the rapidly evolving instability in the region—an area now vital to U.S. interests.

With Iran essentially removed as a U.S. ally, the only military presence directly supporting American interests was the Middle East Force, MIDEASTFOR. Since 1949, the U.S. Navy had based a command ship and two to four combatants in the Gulf in order to maintain a presence in the region. The events of 1979, following on the heels of the oil embargo and the 1974 and 1978 price increases, dramatically impacted American attitudes. The Gulf quickly rose on the U.S. list of priorities. Given the increasing Soviet presence and regional instability, MIDEASTFOR, established as a show-the-flag presence, was no longer adequate to defend U.S. interests in Southwest Asia.

The need for improving U.S. capability to project forces to the Gulf became more evident with the Yemeni conflict in early 1979. A border clash initiated by South Yemen against North Yemen resulted in Saudi and North Yemeni requests for help and an opportunity for President Carter to provide a more visible display of U.S. commitment to the area. Two AWACS aircraft and a squadron of F-15's were deployed to Saudi Arabia, while a Carrier Battle Group was positioned in the Arabian Sea to reiterate U.S. commitment to support the Saudis and other moderate Arab states.

The Yemeni conflict pinpointed two significant shortfalls concerning America's ability to protect its interests in the region. First, our military rapid deployment capabilities were inadequate and second, but most importantly, the U.S. lacked a clear military and political policy for Southwest Asia.

CARTER DOCTRINE

After the Christmas 1979 Soviet invasion of Afghanistan and its direct threat to Persian Gulf oil flow, President Carter quickly announced a new Strategic Doctrine for the region. This new doctrine stated that any attempt by an outside force to gain control of the Persian Gulf region would be regarded as an assault on U.S. vital interests and would be repelled by any means necessary, including military force.

Putting this commitment into action required increased forces, and the airlift and sealift necessary for effective power projection. The Rapid Deployment Force (RDF), which was established in November 1979, was tasked to implement this doctrine. Although its initial focus was toward Southwest Asia, resource constraints precluded dedicating a sufficient number of forces and lift assets to give it the desired credibility.

REAGAN COROLLARY

In the early 1980's, the Reagan administration decided to take more direct and concerted action. Faced with the immediate threat of the Iran-Iraq War spilling over to other Gulf states, and the continuing presence of Soviet troops in Afghanistan, defense budgets to support the RDF were increased starting in 1981. On January 1, 1983, a new Unified command was established to focus exclusively on Southwest Asia. This new organization, the U.S. central Command (USCENTCOM) was structured to become a permanent and more credible deterrent to aggression in the area.

In October 1983, the U.S. announced a broadened policy commitment for the region. President Reagan pledged that the U.S. would not allow Saudi Arabia to become another Iran. Subsequent comments by administration officials indicated that American troops would, if necessary, protect the free flow of oil through the Strait of Hormuz against any threat.

The foundations for today's U.S. policy in Southwest Asia were laid by the carter Doctrine and Reagan corollary. Current U.S. policy is directed at ensuring the free flow of oil; enhancing regional stability; and limiting Soviet control, influence and access. This policy was put into action in the late 1980's when the Iran-Iraq War spread to the waters of the Persian Gulf and impacted non-belligerent shipping transiting the waterway.

In order to reaffirm U.S. resolve to maintain the flow of oil and ensure freedom of navigation, in May 1987, President Reagan approved Kuwait's request to reflag eleven Kuwaiti ships as U.S. vessels. All U.S. flagged ships transiting the Persian Gulf, Strait of Hormuz, and Gulf of Oman were afforded protection. Other vessels were also granted protected status on a case-by-case basis when determined to be in the interest of the U.S. The protection mission, called Operation Earnest Will, is still underway today and demonstrates the continuing commitment of the U.S. to support its friends in the region.

The instability endemic to this region, the ever-growing world demand for oil, and the increasing reliance on Persian Gulf oil by Free World economies guarantee that Southwest Asia will become a more strategically important area of the world for the foreseeable future. As long as oil remains the primary source of energy for the industrial world, USCENTCOM's AOR will remain vital to the security of the U.S., its allies and friends.

Biographical Sketch

General H. Norman Schwarzkopf is the commander in Chief, United States central Command, MacDill Air Force Base, Florida.

General Schwarzkopf was born on August 22, 1934 in Trenton, New Jersey. He graduated from the United States Military Academy at West Point, New York in 1956 and was commissioned a second lieutenant in the Infantry. During his military career, General Schwarzkopf attended basic and Advanced Infantry Officer raining at Fort Benning, Georgia, the Command and General Staff college at Fort Leavenworth, Kansas, and the Army War college at Carlisle Barracks, Pennsylvania. He also attended the University of Southern California where he was awarded a Masters Degree in Guided Missile Engineering.

During his years of service, he commanded Army units from platoon through corps level. He served two combat tours in the Republic of Vietnam—the first as Task Force Advisor, Vietnamese Airborne Division and the second as Battalion commander of the 1st Battalion, 6th Infantry, 23rd Infantry Division (AMERICAL). General Schwarzkopf commanded two infantry brigades, the 172d Light Infantry Brigade in Alaska and the 1st Brigade, 9th Infantry Division, Fort Lewis, Washington. He served as the Assistant Division commander, 8th Infantry Division (Mechanized), United States Army Europe, and as commander of the 24th Infantry Division (Mechanized) and Fort Stewart, Georgia. It was during this assignment that he was designated the Deputy Commander of the Joint Task Force in charge of U.S. Forces participating in the Grenada rescue operation. He subsequently commanded I Corps and Fort Lewis, Washington.

In addition to his numerous command assignments, General Schwarzkopf served as the Deputy Director for Military Plans and Policy at the United States Pacific Command, Camp Smith, Hawaii; as the Director of Military Personnel Management and Assistant Deputy Chief of Staff for Personnel, Headquarters, Department of the Army: and as Assistant Deputy Chief of Staff for Operations and Plans, Headquarters, Department of the Army.

Most recently, General Schwarzkopf served as Army Operations Deputy, Joint chiefs of Staff/Deputy chief of Staff for Operations and Plans, Headquarters, Department of the Army.

General Schwarzkopf's numerous awards and decorations include the Distinguished Service Medal with Oak Leaf Cluster, Defense Superior Service Medal, three Silver Stars, Legion of Merit, Distinguished Flying Cross, three Bronze Stars with "V" device, two Purple Hearts, Combat Infantryman Badge and the Master Parachutist Badge.

General Schwarzkopf is married to the former Brenda Holsinger. The Schwarzkopfs have three children, Cynthia, Jessica, and Christian.

ABOLITION OF CENTCOM

Senator **Inouye**. As I indicated in my opening statement, I look upon your command area as being the most heavily armed outside of NATO, and the most volatile. With the reduction in tension in Europe, your area becomes a major area of concern to all of us.

Having said that, we have also heard rumors that CENTCOM may be abolished. Is there any credence to that?

General SCHWARZKOPF. Mr. Chairman, I think that any time the Department of Defense faces major cutbacks you are always going to see some indication that people are looking for headquarters to reduce. In that light, I am sure that CENTCOM is being looked at as well as other headquarters as a possible source of reduction.

Senator INOUYE. Do they not know what is happening in your command area?

General SCHWARZKOPF. I am sure they do, Mr. Chairman. But, if you remember, my command area used to be split between two unified commands and I am sure there are always those—as a matter of fact, I know for a fact there are some—that believe we should go back to that arrangement.

Senator INOUYE. In looking over the picture that you have in your testimony, the one with the 13 conflicts, I note the absence of two countries which philosophically, religiously should belong in that command area. That is Libya and Israel.

LIBYA AND ISRAEL NOT IN COMMAND AREA

General SCHWARZKOPF. Mr. Chairman, I think that when the original boundaries were drawn for Central Command, when Central Command was carved out of other commands, there was a concern that because the Sixth Fleet in the Mediterranean belonged to the European Command that all of the Mediterranean littoral should remain under European command so that their ports were available to the Sixth Fleet.

Of course, then somebody realized that you certainly could not give Central Command responsibility for the Arab world and not include Egypt, so Egypt was singled out and put into Central Command, but the rest of the Mediterranean littoral remained in European Command. That is why you still see those countries as part of European Command.

Senator INOUYE. Does that make sense to you?

General SCHWARZKOPF. I can think of several countries that should probably be in Central Command's area of responsibility from a philosophical standpoint.

Senator INOUYE. Well, I can assure you that I look upon your area of command as being extremely important to us.

Do you believe that when Iran has adequately rearmed it will resume its war with Iraq?

General SCHWARZKOPF. [Deleted.]

Senator INOUYE. [Deleted.]

General SCHWARZKOPF. [Deleted.]

CHINESE SALE OF MISSILES

Senator INOUYE. Last December, after the Scowcroft visit to China, we were assured that the Chinese would not sell medium-range missiles to Middle Eastern nations. However, it appears that the Chinese may still be interested in selling M-9 series ballistic missiles to Syria, and this one has a 375-mile range; is that correct?

General SCHWARZKOPF. [Deleted.] You are absolutely correct; the range goes all the way up to 1,000 kilometers. But to date there are no known deliveries.

Senator INOUYE. Can you also confirm that Iran has acquired the Chinese Silkworm?

General SCHWARZKOPF. Absolutely; Iran has the Silkworm.

Senator INOUYE. The surface-to-surface missile?

General SCHWARZKOPF. Yes; it is a surface-to-surface missile, and it is sitting, among other places, right in the mouth of the Strait of Hormuz where it threatens all the shipping that goes through there. And, as I am sure you remember, that was the missile that hit one of our ships that was parked up in the Kuwait anchorage.

Senator INOUYE. So the assurances the Chinese gave us were not worth anything, then.

General SCHWARZKOPF. You could draw that conclusion. But, as I say, Mr. Chairman, [deleted].

I would also tell you that there is an awful lot of other countries out there that are providing those kinds of missiles to that part of the world right now, and they do not have to depend upon China if they really want them.

Senator INOUYE. I have been advised that the administration is planning to transfer to Egypt 700 M-60A1 battle tanks from the European inventory. The Egyptians have agreed that for every M-60A1 tank it receives, it will destroy a Soviet T-54 or T-55. But, nevertheless, with this 700 it will be a significant upgrade in the armor capability.

UPGRADE IN EGYPTIAN ARMOR CAPABILITY

Do you believe that this upgrade in armor capability will have an effect on the balance of power in that part of the world?

General SCHWARZKOPF. Mr. Chairman, I do not believe so, for a couple of reasons. [Deleted.]

Second, as you quite rightly said, the Egyptians have agreed to get rid of their Soviet inventory of tanks when they get the M-60A1 tank in an equal number. So I think that leaves you essentially with just about the same capability.

The M-60 is a better tank than the tanks they are getting rid of, but I would tell you that I think the main reason why the Egyptians are going for these tanks is they have made a conscious decision to divest themselves of all the Soviet equipment and go to U.S. equipment only because it simplifies their logistic system. They can support themselves much better if all of their supplies, spare parts, and logistics come from or are sourced from one country. I think that is what is driving their decision more than that it is trying to get a better military combat capability.

Senator INOUYE. [Deleted.]

General SCHWARZKOPF. [Deleted.]

TRANSFER OF EXCESS SOVIET EQUIPMENT

Senator INOUYE. Now, under the conventional forces treaty, NATO and Warsaw Pact would have to destroy hundreds of tanks, artillery, armored combat vehicles, aircraft, helicopters. Do you have any evidence that the Soviet Union has begun transferring excess equipment from the European theater to her friends in the Third World, particularly in the Middle East and Africa?

General **Schwarzkopf**. I could not trace a piece of equipment directly from Europe to somebody in that part of the world, but there is no question about the fact that the Soviets, first of all, are pouring an unbelievable amount of equipment into Afghanistan today, far more than they did in years past. As a matter of fact, the figures I have show it is about [deleted] worth of heavy equipment each month. And that is very modern Soviet equipment, unlike that which they used to provide before.

So I think you could make a good case that the fact that things are changing in Europe has put the Soviets in a position where they can put more modern equipment into Afghanistan. [Deleted] and this is again very, very modern equipment. So, although, as I say, I could not draw you a very direct line, I certainly say there is a cause-and-effect relationship there that we should be able to track.

I am, of course, very worried about what is going to happen down the road when more of that equipment becomes available because, as you know, one of the principal sources of hard currency for the Soviet Union today is in their military equipment sales, and I have every reason to believe that they are going to continue to sell their military equipment to anyone who has the hard currency to pay for it.

Senator **Inouye**. And now, with the United States transferring some of our equipment to our allies there, in fact we have [deleted] more M–60's and it has been said that they may go to [deleted] or other places like that. And now with the Soviets sending in their excess equipment to [deleted] Afghanistan, do you anticipate an arms race in that part of the world?

General **Schwarzkopf**. I think, Mr. Chairman, it is fair to say that the arms race has been going on for quite some time, and I think it is going to continue to go on. It is really a question of each one of these countries looking at their neighbors. They see what their neighbors are acquiring and therefore they feel they have to acquire an equal capability, No. 1, for their own defensive needs, and, No. 2, it is a matter of face in that part of the world.

But I would tell you that I really do not view the U.S. actions as fueling this arms race because the amount of modern military hardware that is available on the open market to cash-paying customers is going to be there whether the United States participates or not. And in some cases if the United States does not provide equipment [deleted] they are going to go out and acquire equipment of greater capability, which I think is destabilizing also.

BALLISTIC MISSILES IN THE MIDDLE EAST

Senator **Inouye**. What are the efforts of industrialized nations to curtail a missile buildup in the Middle East? Iraq, for example, is building an advanced arms industry with help from a network of high-technology companies in the West. For example, last December, Iraq announced that it had launched a 48-ton, three-stage rocket capable of putting a satellite in space, and had test fired two surface-to-surface missiles with a range of over 1,200 miles.

How confident are you that the ballistic missiles currently in the hands of Iraq, Iran, Syria, Saudi Arabia, and Libya will not be used against American interests in the Middle East?

General SCHWARZKOPF. Of course I could not guarantee that in any case. [Deleted]. I am also confident of some of the other countries that are currently very friendly to us, but [deleted]. As a matter of fact, I would submit to you that they have been in the past, the Silkworms from Iran, and I think if we got into a confrontation over there, that they would undoubtedly be used against us.

[Deleted.] As you know, the stockpiles of chemical weapons are increasing at an alarming rate in many of the countries over there, to include Libya. It scares me, frankly, as far as the portent for future warfare in that part of the world is concerned.

Senator INOUYE. Shall we send a copy of this testimony to DOD just in case they do not know the importance of your command?

General SCHWARZKOPF. I think they know the importance of my command, Mr. Chairman. It is just that at budgetary times we are all targets.

Senator INOUYE. Well, I can assure you that this committee will look upon your command with all concern and seriousness. General

General SCHWARZKOPF. Thank you, Mr. Chairman.

Senator INOUYE. Senator Kasten?

Senator KASTEN. Mr. Chairman, thank you.

I do not want to repeat something that you, Mr. Chairman, or someone else has already said, but with democracy breaking out all over the world, except for your area, it seems to me that this is going to be an important area that we are going to be having to deal with, and clearly the problems, you would agree with me, are not better and in many cases they could be worse depending on increasing weapons from the Soviet Union.

I assume that that is one of the subjects that the chairman talked about, more and more equipment coming from the Soviet Union as they are taking equipment out of other areas. Is that right? If that is the case, I am not going to have you go through that.

General SCHWARZKOPF. Yes, Senator. The point I made, and I think I would like to expand upon a minute is that what you see, interestingly enough, is the Soviets in some cases are withdrawing from the area. [Deleted.]

But what you see at the same time that sort of thing is happening, is that what they are doing is turning right around and offering more and more arms to anybody who is willing to pay the price. They have been increasing, for instance, their military aid, as I pointed out earlier, to Afghanistan, which has increased rather dramatically.

They are also making an all-out diplomatic offensive in our area. As a result of them pulling out of Afghanistan they have gained some good will, so they are playing on that good will to try to get into some of the countries where they do not have diplomatic presence today. The Soviet fleet in that area has really, rather dramatically, increased to the point where Soviet ships in that area far outnumber the U.S. military ships, and they now have their first permanent presence ever in the gulf.

So it does bother me, and I really do think in the future we are going to see a lot more Soviet hardware flowing into that part of the world.

CHEMICAL WARFARE

Senator **KASTEN**. General, I just want to explore with you the area of chemical warfare—chemical weapons, chemical and biological weapons—and weapons production.

Let me just try to begin—and I understand that this is a closed hearing, so that we might be relatively more able to talk about some of these issues. Let us begin with the use of chemical weapons in the Iran-Iraq war and in other recent skirmishes and outbreaks of hostilities in the area.

First of all, could you describe for the committee the use of chemical weapons in the Iran-Iraq conflict and where in addition to that, are we worried that chemical weapons may have been used or we have evidence that chemical weapons in fact were used?

General **SCHWARZKOPF**. Let me start with the Iran-Iraq war because a very interesting development has come out of that. Chemicals were used extensively by both sides. Unfortunately, there is a perception in the minds of many people in this part of the world that the reason why Iraq won was as a result of its use of chemical weapons. That is not true, but unfortunately that is sort of the attitude that prevails. [Deleted.]

Now that is good for Iran from a propaganda standpoint, because therefore, it does not have to admit that it lost for a lot of other reasons which really did cause it to lose. But it is bad for the area because the countries get the perception that Iraq has this chemical capability, Libya has this chemical capability, other countries are developing this chemical capability; if we do not, that makes us vulnerable.

It is really the nuclear deterrence spiral, just in another term. In fact, Iraq won the Iran-Iraq war because it was able to develop a more superior armor force, and, most importantly, it developed the ability to move that armor force laterally across the battlefield so it could build up a huge armor force in one area and concentrate that force against the Iranians. The principle of mass prevailed, supplemented by chemical weapons.

But the chemical weapons were used.

So, I hate to use the cliche, but it is very true that in the Third World chemical weapons are the poor man's nuclear weapon. They are very cheap. Anybody can put them together [deleted]. That has sort of become the prevailing attitude.

We all know that the Iraqis have used chemicals against the Kurds. [Deleted]. Libya built its chemical factory at Rabta, called it an aspirin factory, but immediately surrounded it by more air defense artillery weapons than guards any U.S. military installation anywhere in the United States of America. You know, you wonder why they have that many air defense weapons guarding an aspirin factory.

[Deleted] and, as a matter of fact, they are in the initial production of mustard gas and nerve gas right now, and they are going to develop a greater capability. So it is there, and it is going to continue to escalate because, unfortunately, we are unable to control a lot of the people out there that look at this as a great profitmaking enterprise and are going to continue to do so in the future.

Senator **Kasten**. Are the Iranians, the Iraqis, or the Libyans now exporting chemical weapons to other countries? [Deleted]. What evidence do we have that either the Iranians, the Iraqis, or the Libyans are exporting chemical weapons to other people in the area?

General **Schwarzkopf**. [Deleted]. I am quite sure that there have been contacts between some of these smaller countries and the Libyans in particular for their chemical weapons. [Deleted.]

So I guess the best answer I could give you, Senator, is I do not think it is happening today, but I certainly think you have the potential for it to happen in the near future.

Senator **Kasten**. Mr. Chairman, could I ask just one other question on another subject?

Senator **Inouye**. Go ahead.

Senator **Kasten**. I want to ask about another subject. I want to talk specifically about Ethiopia, and I would like for you, if you have not already done so, to give us an assessment of the situation in Ethiopia with the rebels. It seemed as if the government was about to fall about 4 or 5 weeks ago, and it seems now that that situation might have changed somewhat.

In the process, we have got hundreds of thousands of people who are starving to death, and once more we are seeing a battle going on in terms of starving people being caught in the middle. I would be interested in your assessment of the situation in Ethiopia, and I am specifically interested in the relationship between Israel and the Ethiopian Government and the weapons and/or military advice or training that the Israelis are said to be giving to the government, the Marxist government, in Ethiopia.

General **Schwarzkopf**. [Deleted.]

Senator **Kasten**. [Deleted.]

General **Schwarzkopf**. [Deleted.]

[The information follows:]

[Deleted.]

Senator **Kasten**. [Deleted.]

General **Schwarzkopf**. [Deleted.]

Senator **Kasten**. [Deleted.]

Senator **Inouye**. [Deleted.]

Senator **Kasten**. [Deleted.]

Senator **Inouye**. [Deleted.]

Following up on the many questions on chemical warfare, are our men adequately and appropriately protected from chemical weaponry?

General **Schwarzkopf**. All of the forces, the limited amount of forces that I have employed in the Middle East right now, all have adequate protection. Even at the height of the Iran-Iraq war when we had 16,000 people over there and all of the ships that we had, we were completely protected from chemical warfare.

If I had to execute a major operational war plan and if I got all the forces that I am authorized for that type of a conflict, [deleted].

Senator **Inouye**. Because of the nature of the testimony this morning I am calling upon the witnesses, if they so wish, to correct, augment, or supplement their testimony, and to advise them that we will be submitting questions of a technical nature for concern and response. I have, for example, many questions on Afghanistan and I think the responses would require checking up on the facts.

General **Schwarzkopf**. You know, we just had a coup there this morning, Senator. It unfortunately was unsuccessful.

Senator **Inouye**. Is this the one at the airport?

General **Schwarzkopf**. This is one that was all over Kabul. We have had reports of bombing in downtown Kabul and it was apparently led by the Minister of Defense against Najibullah. But the last report we got is the coup has failed, unfortunately, because I think that the sooner Najibullah goes the quicker we will have a solution.

Senator **Inouye**. Did our intelligence anticipate that?

General **Schwarzkopf**. [Deleted]. Right now the report that we have, as I say, the best information I have is the fact that the coup did fail and Najibullah is now calling for the head of the, literally, of the defense minister. Dead or alive, they want him to be captured. That is unfortunate.

ADDITIONAL COMMITTEE QUESTIONS

Senator **Inouye**. We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR INOUYE

CONCERN OVER FUTURE OIL SUPPLIES

Question: General Schwarzkopf, many experts are concerned that rising world-wide oil demand, particularly in the United States and the newly industrialized countries, could once again plunge our nation into an energy crisis. At the same time, the production among the OPEC states continues to out-pace that of the major non-OPEC producers leading, some believe, to the reemergence of the cartel as a global power broker. Does CENTCOM have any contingency plans to respond militarily to an oil embargo of the U.S. by one or more Middle Eastern states?

Answer: USCENTCOM's contingency plans are designed to protect U.S. interests in the region. Since an oil embargo would be a political decision, we do not have a specific contingency plan for such a scenario. Although USCENTCOM does not prepare plans for military responses to evolving political or economic situations, we do have plans to assist friendly nations in protecting critical resources and facilities. These plans offer the National Command Authority a wide range of options to deter intraregional conflict and, if required, to assist our regional friends in countering threats to our vital interests.

QUESTION: How should the United States respond to an effort on the part of the Azerbaijanis to cripple the oil installations of the Baku region -- installations and drilling equipment factories representing a significant portion of the Soviet Union's oil infrastructure?

ANSWER: This administration is closely following the events in the Causasus region. We have urged the Soviet leadership to seek to resolve the tensions in the region through dialogue with all affected parties. Ultimately, it is the responsibility of the Soviet Government to guarantee the basic human freedom of free political expression and to respond appropriately to any unlawful acts of violence.

RESUMPTION OF IRAN-IRAQ WAR

Question: Your statement says that the leaders of the nations in the Central Command area of responsibility all agree that as soon as Iran has adequately rearmed, it will resume war with Iraq. Do you agree with this assessment--in your personal, professional military opinion? Does the U.S. intelligence community agree with this assessment?

Answer: Once Iran adequately rearms, there is certainly a potential for the war to resume. My personal discussions with key regional leaders indicate that they feel we are experiencing a "lull" in the fighting with the current cease-fire, rather than the precursor to a permanent peace. Many serious problems remain unresolved between the two countries. Among the more contentious issues are the continued occupation of Iranian territory by Iraq and the unresolved problem of sovereignty and access to the Shatt al Arab waterway. The operative phrase, however, is "once Iran adequately rearms." Given the significant military advantage enjoyed by Iraq over Iran, the time when Iran can adequately defend itself, let alone pursue large-scale offensive operations, is still several years in the future.

Question: What military and non-military contributions are required from our allies and friends inside and outside the region to ensure successful implementation of these operational plans? Have we established agreements and arrangements with each of these allies to ensure that the required military and non-military aid is provided?

Answer: Political realities caution against the establishment of formal agreements with our friends in the region. However, we have been successful in developing some informal arrangements for support and, consciously accepting prudent risk, depend on that support when we prepare our contingency plans.

[Deleted] What host nations could actually provide, though, is frequently constrained by technology, geography, demography, political and economic considerations. For example, obtaining spare parts would be possible only in those isolated instances where our equipment is compatible with that operated by the host nation. We could also expect a supply of fresh water, but only at the quality and capacity levels which the host nation can produce in excess of its own needs. As for our allies and friends outside the region, we believe the Western democracies would again provide military assistance or conduct unilateral operations if our mutual interests were in jeopardy.

IRAQ AND THE ACQUISITION OF WESTERN WEAPONS TECHNOLOGY

Question: Under what conditions would you recommend launching a preemptive strike against hostile Middle East countries in possession of missile, chemical or biological technology?

Answer: The Joint Staff, in concert with the CINC's continually plan for all possible contingencies. The use of any planning aggressively towards a state hostile to US interests is dependent upon the specific circumstances in existence at that time.

Question: If such an attack were contemplated, should it be coordinated with our allies and through which international forum?

Answer: If the execution of an operational plan were contemplated, coordination with our allies, and through which forum would be dependent on the situation.

Question: In retrospect, do you consider the Israeli strike against Iraq's nuclear facility in 1981 to have made a positive contribution to western security interests in the region?

Answer: The Joint Staff has no evidence to judge the impact of the raid on western security interests.

MTCR

QUESTION: Can you recommend any changes in the Missile Control Regime that would help to staunch the flow of weapons technology to countries like Iraq?

ANSWER: The Department of State tells me that we are making a number of changes to improve the MTCR and make it more effective in stemming the flow of missile-related equipment and technology to all countries, including Iraq. We recently brought five new countries into the MTCR, and we expect to bring in more in the near future. This means commitments from additional suppliers not to sell such items, and it eliminates potential transit points for such items. In addition, other countries which are not formally associated with the MTCR, are cooperating informally.

We are strengthening the exchange of information, which allows us to take joint action to stop sensitive exports to programs such as Iraq's. We are also harmonizing implementation by sharing information on how each member implements the MTCR Guidelines and how they interpret them. Finally, we are putting more order into how the MTCR conducts its business which should further facilitate the coordination of action on missile exports. The MTCR needs to be strengthened, and we are pleased that it is evolving in a very positive way.

DISPOSAL OF EXCESS EUROPEAN EQUIPMENT

Question: General Schwarzkopf, under the CFE treaty, NATO and the Warsaw Pact would have to destroy hundreds of tanks, artillery, armored combat vehicles, warplanes and helicopters. Can you confirm reports that the Soviet Union has begun transferring large numbers of tanks and other armored vehicles to Iraq?

Answer: [Deleted]

OFFER OF M-60 BATTLE TANKS TO EGYPT

Question: General Schwarzkopf, I understand that the Administration intends to give Egypt 700 M60A1 battle tanks from its European inventory this summer in anticipation of an arms agreement with the Soviet Union. The Egyptians have agreed that for every M60A1 tank it receives, it will destroy a Soviet T-54 or T-55 tank now in its inventory. Nevertheless, the Egyptians will be getting a significant upgrade in their armor capability. Will any other African or Middle Eastern countries be receiving tanks or other armor vehicles withdrawn from US stocks in Europe? Which countries? How many?

Answer: The 1990 [Deleted] produced by the State Department, identified African or Middle Eastern countries as potential recipients of from the European inventory: [Deleted] Egypt has signed a Letter of Offer and Acceptance (LOA) for the transfer of 700 tanks under provisions of the Southern Region Amendment. Jordan and Pakistan have decided against accepting tanks from the European drawdown at this time. Lastly, an LOA is being written for Oman to purchase 37 M60A1 tanks; however, these assets are not identified as coming from this drawdown.

No other armored vehicles from the European drawdown are currently proposed for transfer to countries within the USCENTCOM area of responsibility.

Question: What reaction have you received from other countries who might have reason to fear a build-up in Egypt's armor capability?

Answer: No country within USCENTCOM's AOR has indicated any concern over the pending transfer or sale of tanks to Egypt.

CHINESE BALLISTIC MISSILE SALES TO THE MIDDLE EAST

Question: General Schwarzkopf, last December, in the wake of the visit of U.S. National Security Adviser Brent Scowcroft to China, the Foreign Ministry announced it would not sell medium range missiles to Middle Eastern nations. Despite these assurances, however, it appears that China may still be interested in selling its M-9 ballistic missiles to Syria. The missile has a 375-mile range. Can you confirm that Iran has acquired shipborne Chinese HY-2 "Silkworm" surface-to-surface missiles?

Answer: [Deleted]

Question: Can you confirm reports last year that China is helping Iran produce anti-ship missiles in Iran?

Answer: [Deleted]

Question: What threat might the Iranian acquisition of shipborne Chinese missiles pose to U.S. operations in the area?

Answer: Were the Iranians to mount Chinese anti-shipping missiles aboard their naval vessels, they could conceivably bring the entire Persian Gulf within range of these systems. This has the potential to increase the severity of attacks on unarmed merchant ships.

Question: Can U.S. forces deal effectively with this threat?

Answer: The threat to U.S. combatants would be [Deleted]

REGIONAL CONTINGENCIES-LIKELIHOOD AND CENTCOM RESPONSE

Question: General Schwarzkopf, your statement says that the active support of our friends and allies in the region is a critical element in securing our vital interests there in peace and war. What specific allies would you expect to fight alongside us if you had to carry out your contingency war plans?

Answer: Since no formal agreements for common defense of the region exist, we do not normally prepare contingency plans that involve combined operations. We do, however, make planning assumptions and provisions for coalition operations. Based on their recent support of activities in the Persian Gulf, we believe the Western democracies will provide military assistance or conduct unilateral operations if our mutual interests are in jeopardy. We also believe regional governments that perceive a threat to their sovereignty will permit U.S. access to their facilities and resources, and provide as much military and non-military support as possible.

Question: What specific agreements exist between the U.S. and each of its major friends and allies in CENTCOM's area of responsibility to commit each of these nations to actively help us implement your contingency war plans?

Answer: While the U.S. has had a bilateral Agreement of Cooperation with Pakistan since 1959, no regional defense agreements exist with friendly nations in our AOR. Without a defense agreement, there is no official basis for supporting deployment of U.S. forces or offsetting costs.

However, [Deleted].

RUMOR OF POSSIBLE JOINT IRAQI-JORDANIAN SQUADRON

Question: General Schwarzkopf, Jordan's prime minister and defense minister, Mudar Bafdran, recently announced that Iraq would be training pilots for the Jordanian Air force. Is there any substance to the rumors that a joint Iraqi-Jordanian air force squadron is to be formed? If so, how will it be configured?

Answer: The Jordanian Air Force Commander announced to the Jordanian parliament during February, 1990 that Amman and Baghdad had agreed to form a joint air force squadron. The squadron is to be a training unit that will probably use the French MIRAGE F-1, since both countries operate that aircraft. The Jordanian Palace Chief, Bin Shakir, has continually played down the squadron's significance. [Deleted]

Question: Does this development, if true, pose any threat to United States interests in the region?

Answer: [Deleted].

Question: How should the United States respond to the development of closer military ties between Jordan and Iraq considering the growing strategic threat posed by Iraq in the region and the prevalence of U.S.-supplied military equipment in Jordan?

Answer: The United States and Jordan have both benefited from a long and productive military relationship. A stable and secure Jordan supports U.S. interests in the Middle East, and its government provides a moderating influence that aids efforts to reduce tensions throughout the region. [Deleted]

U.S. security assistance to Jordan remains fundamental and every effort should be made to bolster this program.

JORDAN-IRAQ STRATEGIC COOPERATION

Question: General Schwarzkopf, I am concerned by reports of increased Iraqi-Jordanian strategic cooperation and the growth of Iraqi ground and air power since the end of the Gulf War. In addition to the establishment of a joint "national air squadron" between their two countries, Iraq and Jordan are believed to be forming a joint army brigade utilizing Iraq's recently acquired mobile SAM protection. Are you aware of other evidence of Jordan-Iraq cooperation?

Answer: [Deleted].

Question: What, in your opinion, has sparked this new round of military cooperation?

Answer: Cooperation between Jordan and Iraq is not a new phenomenon. Both countries were founding members of the Arab Cooperation Council; and Jordan was an active supporter of Iraq during the Iran-Iraq conflict.

Today, Jordan is striving to maintain and sustain the readiness of its armed forces in spite of growing economic pressures brought on, in part, because of an overall lessening of U.S. security assistance. As a result, it has been forced to turn to non-U.S. sources for equipment, training support and maintenance. Iraq is one of the countries that has provided support for some of the equipment in Jordan's inventory. Jordan participates in joint training with the U.S. or other countries, including Iraq, to reduce the impact of current budgetary constraints on the readiness of its armed forces.

Question: Have these events forced a reevaluation of CENTCOM strategy for defending the region?

Answer: USCENTCOM's strategy is constantly being reviewed and updated to meet the changing security environment. While we are aware of the reports of increased Iraqi-Jordanian cooperation, none of the activities has caused a specific change to our regional warfighting strategy.

Question: Against what threat has Iraq maintained between 50 and 55 ground divisions while Syria only has 10, Jordan 4, Iran 10 and Israel 12?

Answer: [Deleted]

Question: General Schwarzkopf, I am concerned by reports of growing Iraqi military activity in the region and what that might mean for the security of the region. I am particularly disturbed by a report that last July, an Iraqi Mirage F-1 fighter used Jordanian territory to conduct an alleged surveillance mission along Israel's eastern border. Was CENTCOM aware of the alleged July, 1989, flight of an Iraqi Mirage F-1 fighter through Jordan and along Israel's eastern border?

Answer: [Deleted]

Question: How soon did you become aware of the incident and through what channels?

Answer: [Deleted]

Question: What recommendation did you transmit back to Washington over this incident?

Answer: While we were aware of the incident, it was over quickly. No recommendation was solicited by JCS and none was provided.

Question: Were any CENTCOM forces placed on alert?

Answer: [Deleted]

Question: What action were you prepared to take in the event this incident had escalated Israel-Iraqi hostilities?

Answer: [Deleted]

Alleged Iraqi Spy Mission

Question. What, in your view, is the significance of this event? Could the Iraqis be testing the reaction of Israeli air defense in preparation for possible future attacks?

Answer. [Deleted]

Question: Please provide the Committee with all the cable traffic you sent and received regarding this incident.

Answer: These cables are internal working documents, some requiring other government agency clearance for release. Additionally, any single message taken out of context to the total picture of the incident could be misconstrued. It is also near impossible to properly classify these documents for release to Congress. The package of cables is available for review in the Pentagon.

U.S. SPECIAL OPERATIONS TRAINING AND JORDAN-LIBYA TIES

Question: General Schwarzkopf, it is my understanding that the Jordanian military personnel have been provided with special anti-terrorist training by U.S. Special Operations Forces. Yet, I have recently learned from press reports that Jordan and Libya have restored diplomatic ties and are anxious to improve relations across an array of fronts. I am troubled that, since Libya is a principal sponsor of state-supported terrorism, U.S. anti-terrorist tactics transferred to Jordan may fall into the hands of the very people they are intended to be used against. How confident are you that this is not taking place? Are you monitoring this situation? If not, why not?

Answer: [Deleted]

Question. What is the level and extent of Libyan involvement in international terrorism at this moment in time?

Answer. [Deleted]

Question. How would you rate the success of the U.S. raid on Libya in discouraging subsequent terrorist acts?

Answer. [Deleted]

AUGUST 1989, EXPLOSION AT IRAQI MISSILE PLANT

The following questions pertain to chemical warfare.

Question:

General Schwarzkopf, there were reports last August that a massive explosion in Iraq destroyed a missile plant engaged in making chemical warheads for advanced long-range missiles. Can you confirm that the Iraqis were using this plant to produce chemical warheads for advanced long-range missiles?

Answer: [Deleted]

Question:

From what specific countries has Iraq obtained its chemical weapons and missile production technology?

Answer: [Deleted]

Question: What is the current status of the Condor II missile project? What countries continue to participate in the project?
Answer: [Deleted].

Question:
What is Iraq's current capability to produce chemical weapons agents and their appropriate delivery systems? In five years?

Answer: [Deleted].

Question. What countries do you see as the likely targets for Iraqi missiles?

Answer. [Deleted].

Question:
Please provide this committee with a detailed report on the disposition of Iraq's chemical weapons facilities.

Answer: [Deleted].

SAUDI M1 TANK BUY

Question: General Schwarzkopf, the United States Army recently presented the Saudi Government with a "letter of agreement" that will trigger the sale of 315 M1 tanks if the Saudis sign the contract. What is the justification for this sale in light of diminishing East-West tension, the presence of U.S. forces in the Persian Gulf, and the recent acquisition of $30 billion in military hardware from British suppliers?

Answer: The Southwest Asia region has been a volatile, unpredictable area for decades. Although recent events in Eastern Europe and the Soviet Union have reduced East-West tensions, they have not produced the same results in USCENTCOM's area of responsibility. Tribal disputes, terrorism, unresolved border issues and similar problems continue to generate friction and instability and at anytime could lead to open conflict, -- again threatening American lives and our vital interest in the region.

At the same time, U.S. military presence in the region is declining. The Iran-Iraq cease-fire continues to hold and has allowed us to prudently and cautiously reduce the number of naval combatants deployed in the Persian Gulf. Unfortunately, restricted arms sales and declining levels of security assistance are also reducing our presence. If these trends continue, the combined effect could cause our friends in the area to question the strength of our commitment to regional security and look to others for help in meeting their legitimate defense needs.

The sale of the M1A2 main battle tank to Saudi Arabia serves many purposes. The sale is in line with U.S. policy to provide for the legitimate security and defense needs of our moderate Arab friends. The Saudi tank force is in serious need of improvement, both qualitatively and quantitatively, in order to defend a country that approximates the size of the United States east of the Mississippi River. The sale will clearly demonstrate that the U.S. supports Saudi Arabian efforts to improve its national security. The M1A2 will enhance the deterrent capabilities of Saudi Arabian forces to guard strategic petroleum reserves and centers of religious and political importance in the Arab world.

If the U.S. does not demonstrate its continuing commitment to regional stability and its willingness to assist nations trying to build and maintain self-defense capabilities, our credibility will be questioned. Doubts about U.S. capabilities, intentions, and value as a long-term defense partner could reduce our access and decrease USCENTCOM's ability to defend our vital national interests.

Question: Will these tanks be available to the United States in the event of a military contingency in Southwest Asia requiring the intervention of CENTCOM forces?

Answer: As far as the terms of sale are concerned, there are no contractual provisions for use by U.S. forces. In the event of a military contingency, the availability of these tanks to the U.S. will be scenario-driven and depend upon the requirements of the Saudi Arabian Armed Forces and their willingness to engage with us in coalition warfare. It is most likely that the Saudi Arabian Armed Forces would man the tanks themselves to defend their kingdom.

BALLISTIC MISSILES AND MIDDLE EAST WARFIGHTING

Question: General Schwarzkopf, Iraq's acquisition of ballistic missile technology, and presumed chemical weapons capability, has raised questions about the conduct of war in the Middle East in the 1990s and beyond. The so-called "War of the Cities," waged by Iran and Iraq at the height of the Gulf War, demonstrated that a new threshold of devastation has been reached for countries in the region. How has Iraq's growing chemical weapons and long-range missile capability altered your warfighting plans for the region?

Answer: USCENTCOM's plans for its assigned area of responsibility are currently being revised to focus on potential threats to U.S. interests which could result from intraregional conflicts. Because of this revision, it is too soon to define exactly how our existing plans will be modified to deal with the additional risks caused by the increasing numbers of these weapons.

U.S. forces currently assigned to the region have

[Deleted]

We need to continue programs to acquire protective and decontamination equipment to expand our ability to react to chemical attack.

Question: Are any ballistic missile countries in the Middle East capable of a depressed-trajectory missile attack?

Answer: [Deleted].

Question: Are the U. S. forces that would be assigned to CENTCOM in the event of hostilities equipped to fight in chemical, biological and radiation environments? Are any improvements in training and equipment necessary in this area?

Answer: USCENTCOM's assigned forces in the Persian Gulf are well-equipped to operate in an NBC environment.

[Deleted]

Once the threat of chemical weapons in the Persian Gulf area became known, our forces operating in or directed to the area were fully equipped with the necessary individual protection, detection, and decontamination equipment. Our component commanders provide regular chemical defense training for all our forces, while our on-scene commanders make appropriate decisions regarding chemical defense based on current intelligence reports and assessments.

[Deleted]

SYRIA EQUIPS SCUD MISSILES WITH CHEMICAL WARHEADS

Question:

General Schwarzkopf it was recently reported that Syria has equipped, for the first time, several of its SCUD missiles with chemical warheads. If so, this would mark a dangerous new turning point for the Middle East. Prior to this, Syria was believed to be developing a chemical weapons capability. Can you confirm that Syria, in fact, has armed some of its SCUD missiles with chemical warheads?

Answer:

[Deleted]

Question. What threat does this pose for the American 6th Fleet in the Mediterranean? NATO? Our regional allies?

Answer. [Deleted]

Question: Have you developed military contingency plans to deal with this threat? If so, what sort of contingencies?

Answer: The Joint Staff in concert with the CINC's continually plan for contingencies to protect the US from any threat to our national interests. Specific contingencies are based on the threat.

Question: Do you have contingency plans to deal with this threat in concert with our allies in the region? NATO?

Answer: As previously stated, planning is a continual process, the extent to which we plan with our allies is strictly dependent on the nature of the threat as it relates to common security interests.

PRE-POSITIONING

Question: General Schwarzkopf, the pre-positioning of war material is one of the key elements of our forward strategy -- a strategy which is designed to ensure that adequate supplies are available to our forces to repel an aggressor before he establishes primacy outside of his home territory. How has the renewed concern over low-intensity conflict affected your planning for pre-positioned war stocks in the Middle East?

Answer: Recent developments in international relations have apparently lessened the threat of a global war. Therefore, we have shifted our emphasis from a counter-Soviet strategy to one of preparing for regional conflicts. This renewed concern over regional conflicts, including low-intensity conflicts, has resulted in an ongoing review of our operation plans, and our pre-positioning program. As part of the deliberate planning process, we will reevaluate and validate our pre-positioning requirements, focusing on supporting the most demanding regional conflict.

Question: At what rate are we continuing to fill our Middle East stockpiles of ammunition, POL, vehicles?

Answer: We are continuing to increase the on-hand quantities of pre-positioned stocks as access and facilities become available. However, access limitations have prevented the program from fully meeting its objectives.

Shipments in FY89-90 will increase supplies and equipment to of our total requirement.

Placement of ammunition ashore is limited by the nature of prepo agreements, i.e., generally limited to non-lethal materiel. For this reason, the majority of the ammunition stocks are on board the Afloat Pre-positioning Force ships. We have not increased our stocks in FY89-90, and have remained stable at of our total requirement.

In POL, our stockpile fills for FY89-90 have allowed us to reach of our most demanding requirement.

Lastly, with the exception of special purpose vehicles, the Services have discontinued placing vehicles in long-term storage. Shipments in FY89-90 have increased special purpose vehicles to of the total requirement.

Question: Which countries in the CENTCOM region have offered to host pre-positioned stockpiles? What limitation do these countries place on U.S. pre-positioning activities?

Answer: We have war reserve stocks pre-positioned in [deleted] The types of stocks include, but are not limited to, bare base sets, medical supplies, munitions and POL.

While limitations on pre-positioning vary by country, they deal primarily with the types of stocks to be pre-positioned and the site of intended use. Most countries are reluctant to store munitions and restrict use of assets against another Arab country.

Question: Are you actively seeking to expand U.S. pre-positioned stocks in any particular country and for any particular kind of materiel?

Answer: Yes. In we would like to pre-position POL, communications and bare base support equipment. In we would like to pre-position medical supplies, rations, communications and additional bare base support equipment.

Question: How long are our pre-positioned stocks in the Middle East expected to last, and under what scenarios?

Answer: In our worst case scenario, our pre-positioned stocks will provide: of supply (DOS) for supplies and equipment; for POL; DOS for level of effort munitions and for threat oriented munitions. The purpose of these pre-positioned stocks is to support forces until the sealift resupply pipeline matures at approximately days. Additionally, selected commodities, i.e., POL may be provided by host nations, which would augment our pre-positioning stocks.

Question: Are our pre-positioned stocks in the Middle East configured for biological, chemical and nuclear warfare?

Answer: [Deleted]

REMOTELY PILOTED VEHICLES IN THE MIDDLE EAST

Question: What future roles do you envision for remotely piloted vehicles (RPVs) in the Middle East?

Answer: [Deleted]

Question: Has the United States employed UAVs operationally in the Middle East since the Persian Gulf escort mission? If so, how?

Answer: [Deleted]

Question: Characterize the operational success or failure of UAVs deployed with U.S. forces in the Middle East.

Answer: [Deleted]

Question: What additional capabilities could you use in Unmanned Piloted Vehicles that do not exist in today's models?

Answer: Presently, the only UAV available for use is the Marine Corps' Pioneer system. The Pioneer does not meet USCENTCOM's requirements (i.e. range, endurance, altitude and sensor suites). All the services and CINCs requirements were incorporated into mission need statements by the UAV Joint Program Office which were validated by JCS. While the technology exists to satisfy our requirements, DOD operational testing and evaluation of potential UAV candidates is not completed.

Question: What countries in the CENTCOM region currently employ UAV's? What threat do they pose to U.S. military operations in the region?

Answer: [Deleted]

Question: How difficult are UAV's to detect and shoot down? Do you have the capability within CENTCOM to deal effectively with a UAV threat? If not, what additional resources could you use?

Answer: [Deleted]

RAPID DEPLOYMENT FORCE MISSION: IS IT STILL VALID

Question: General, in March, 1982, then-Assistant Secretary of Defense, Francis J. West, Jr., discussed the Reagan Administration's concept of the Rapid Deployment Joint Task Force (RDJTF) before a Subcommittee of the Senate Armed Services Committee. Its mission, according to West, is to "...conduct planning, joint training, exercising and be prepared to deploy designated forces to the Southwest Asia region. The RDJTF is programmed to counter the most serious threat to the area, which would be a Soviet invasion of Iran." Is this mission objective still valid in light of the changes taking place within the Soviet Union?

Answer: On 1 January 1983, the RDJTF was disbanded and the U.S. Central Command created to manage U.S. security concerns in Southwest Asia. Although an invasion of the area by the Soviet Union was one of USCENTCOM's early concerns, this possibility is now considered less likely and the planning focus has been changed to consider more immediate threats to U.S. interests arising from intraregional threats such as the Iran-Iraq conflict.

Question: Does the RDF have a role in countering the threat of terrorism, Islamic fundamentalism, radical nationalism and the narcotics trade?

Answer: Terrorism, radical nationalism and the region's narcotics trade are closely watched by USCENTCOM because they have the potential to threaten U.S. regional interests. By itself, the Islamic fundamentalist movement, which stresses a perception that Moslems need to more closely follow the dictates of the Koran, is not a threat. It is the radical subgroups of this fundamentalist movement, advocating and practicing violence to change the region's existing religious and social order, that are creating the problems and threats to U.S. interests. These subgroups are intensely monitored by USCENTCOM.

Question: Where is the doctrinal line drawn between the Rapid Deployment Force and U.S. Special Operations Forces?

Answer: To ensure Special Operation Forces have the flexibility and support necessary to accomplish their mission when deployed in Southwest Asia, these forces would normally be assigned to USCENTCOM but could, under unusual circumstances, be deployed under the direct control of the National Command Authority to accomplish specific assignments.

Defection of Syrian MIG-23 Pilot

Question. General. Last year a Syrian pilot landed his MIG-23 in Israel and requested asylum. In February 1990, the Israeli's successfully flew the plane for the first time and, I am told, allowed United States officials to conduct a thorough inspection. Did this inspection take place? What, if anything, was learned from the aircraft and the pilot regarding Syrian warfighting doctrine, plans and capabilities?

Answer. Deleted

Question: How does the Soviet MiG-23 compare in performance to comparable U.S. Aircraft? Does it pose a serious threat to the region?

Answer: [Deleted]

PAKISTAN SEEKS INTERMEDIATE-RANGE MISSILE

Question: General Schwarzkopf, in July of last year, Pakistani Minister of State for Defense, Sarwar Cheema, stated that his country intended to acquire intermediate-range missiles. He cited India's recent testing of the Agii intermediate-range missile as justification for the Pakistani move. What steps has Pakistan taken to acquire an intermediate-range missile?

Answer: [Deleted]

Question: Is Pakistan cooperating with any other countries in the development of this technology? If so, which countries?

Answer: [Deleted]

Question: What effect will this development have on the regional balance of power?

Answer: The introduction of ballistic missiles into the subcontinent by India, Pakistan, or both will increase the continuing tensions between these nations and further complicate efforts to maintain regional stability.

Question: How will the acquisition of intermediate-range missiles by India and Pakistan alter U.S. security arrangements in South Asia?

Answer: [Deleted]

Question: Has the Administration taken any steps to discourage Pakistan's acquisition of an intermediate-range missile? If so, what steps has it taken?

Answer: The United States has been actively engaged in efforts to limit the proliferation of ballistic missile systems for years. I would defer to the Under Secretary of State for Security Assistance, Science and Technology, who coordinates missile proliferation policy for the interagency Policy Coordination Committee on non-proliferation, on the specific steps that have been taken by the Administration on this issue.

PAKISTAN'S NUCLEAR WEAPONS PROGRAM

Question: What capability do you have of monitoring the nuclear developments in South Asia?

Answer: [Deleted]

India, Pakistan and the NPT

QUESTION: Can you report any progress in getting India and Pakistan to become signatories to the nuclear non-proliferation

ANSWER: The United States continue to press both India and Pakistan to adhere to the non-Proliferation Treaty (NPT). The Government of Pakistan says it will sign the NPT as soon as India does. The Indian Government has long held that the NPT is inherently discriminatory, in that the signatories who already have nuclear weapons may keep them, while those without nuclear weapons may not develop them. The Government of India's position is that it will not sign away its nuclear options as long as India's security is threatened by the nuclear arsenals of the other nations, including China. Neither India nor Pakistan has moved from its long standing position on this issue.

Gtreaty enacted in 1968?

Pakistan-Iran Relations

Question. What is the nature of the increasing military links that have been reported between these two countries?

Answer. [Deleted]

Question. Do you have any evidence that Pakistan has been responsible for the transfer to Iran of Stinger missiles originally destined for the Mujahideen rebels fighting in Afghanistan?

Answer. [Deleted]

Question: Do you have any evidence that Pakistan has transferred any United States military technology to Iran or that Pakistan has shared any of its nuclear technology with the Government?

Answer: [Deleted]

QUESTION SUBMITTED BY SENATOR BYRD

NEED FOR FORWARD BASES

Question: U.S. policy has been to station troops and military supplies and equipment as far forward as possible to areas of possible conflict. The reasons for this are obvious: to have a nucleus organization and the heavy supplies near enough so they will not have to be moved long distances in an emergency. There can be no better illustration of the utility of this strategy than the recent Panama operation. What effects will the diminished Soviet threat and anticipated reduction of our military forces in Europe have on our strategy of forward basing in places like the Persian Gulf and the Pacific?

Answer: Diminishing East-West tensions and the reduction of military forces in Europe will not have a major impact on the strategy of forward basing in the Persian Gulf. Because of the political realities of Southwest Asia, USCENTCOM must rely on only a small contingent of forward deployed naval forces to display our continued commitment to the security of friendly nations. Although we have negotiated agreements to permit the pre-positioning of some supplies and equipment, we have no forward-based land or air forces in the region. With only a small contingent of naval forces, USCENTCOM will draw on a common pool of forces stationed in the U.S. should the need arise to respond to threats to our vital regional interests. Our ability to maintain access agreements and continue to pre-position needed supplies will influence the speed with which we can deploy these forces. Likewise, scheduled improvements to our strategic lift capabilities are critical for the timely response and sustainability of our forces.

QUESTIONS SUBMITTED BY SENATOR DeCONCINI

Question: General, on a number of occasions in your testimony, you criticize Congress' imposition of the buy-back provisions on the STINGER missiles in Bahrain. You are also well acquainted with the reasons for the imposition of that provision. Has there been any progress in resolving and recovering the STINGERS which were illegally obtained by Qatar?

Answer: While there have been a number of diplomatic contacts with the Government of Qatar concerning disposition of this problem, a resolution is not yet in sight.

Question: Have you had any contact with the State Department on its development of a credible missile non-proliferation policy? Do you have any information about the resubmission of a non-proliferation policy report to Congress which will be acceptable to Congress and, once received, will make Congress take the appropriate steps to lift its buy-back provision on the Bahraini STINGERS and reconsider its opposition to the sale of STINGERS to Oman?

Answer: As the regional command with the most significant missile proliferation problem, we at USCENTCOM are very much interested in the efforts to establish a workable and effective international limitation effort. We are not, however, involved in any significant way with the development of that policy, which falls outside of the responsibilities of a military command. We do, however, regret that the question of selling short-range air defense missiles to friendly countries in the area has become linked with the entirely separate question of policy on ground-to-ground ballistic missiles.

Question: As you worked closely with the former U.S. ambassador to Bahrain, Sam Zakhem, can you relate how well U.S. interests are being represented by the new U.S. ambassador?

Answer: Ambassador Hostler has done an excellent job in representing U.S. interests in his important and challenging job. Our good working relationship with Bahrain is based on a great measure of shared values and strategic interests, and we would not expect them to be affected by changes in key U.S. representatives.

Question: Are you aware of any plans by the US to sell STINGERS to Oman? Are other, less controversial but equally if not more capable air defense systems being considered for sale to Oman at this time?

Answer: I am not aware of any U.S. plans to sell STINGERS or any another air defense system to Oman.

Question: I want to congratulate you on the formulation of Operation Native Trout. I would like to get into some detail on this program and its goals and successes to date. How many U.S. military personnel under your command are involved in the operation? How many U.S. embassy personnel?

Answer: Operation Native Trout is our initial effort to support the National Drug Control Strategy and to develop DOD's enforcement capabilities in the region. Since becoming involved, we've gotten smarter with regard to determining how best to support U.S. programs in both source and transshipment countries. Our level of support to national programs and the accomplishment of our detection and monitoring mission are directly dependent on the number of forces this command can bring to bear. With few permanently assigned forces in the AOR, our counternarcotics responsibilities rest primarily with our security assistance personnel. Critical to the success of this mission is the strong commitment of host-nation forces to becoming self-sufficient in controlling illicit narco-trafficking.

Internally, we have organized a counternarcotics division in USCENTCOM, consisting of seven permanently assigned and ten supporting personnel -- with hands-on experience ranging from intelligence to logistics and communications. This division directly supports USCENTCOM's representatives in thirteen countries in the AOR. These representatives serve as members of the country teams and are responsible for coordinating all DOD actions for the Embassy. [Deleted]

The Department of State can best provide additional information concerning how many U.S. Embassy personnel are involved in this operation, since they coordinate the overall overseas effort.

Question: At what level are the foreign government contacts involved in this operation?

Answer: Counternarcotics discussions with foreign governments are initiated by the U.S. Ambassador in each country. Should these discussions dictate, USCENTCOM stands ready to execute its responsibilities as outlined in Operation Native Trout -- to respond to requests from the U.S. Ambassadors by providing support to host nations and other U.S. agencies.

Question: How do you coordinate activities with State Department, DEA and foreign government representatives?

Answer: USCENTCOM serves as the DOD representative responsible for supporting counternarcotics efforts of host nations and U.S. government agencies, to include DEA. Any discussions between this command and host-nation representatives are coordinated through the U.S. Ambassador and his staff.

Question: Have you encountered any problems, indifference, opposition, or hostility from other governments in your establishment and implementation of Operation Native Trout?

Answer: Operation Native Trout is a framework to support U.S. and host-nation counternarcotics programs and improve DOD capabilities. Host nations are not necessarily aware of Native Trout as a specific operation. Our country teams coordinate with host-nation representatives to determine ways to improve their internal security as a means to combat narcotics trafficking. Almost all friendly nations in our region are beginning to recognize illicit drugs as an insidious threat requiring an effective response. But, in many cases, they lack the capability to confront the problem. Higher priority demands have left most countries with few resources to use against narcotics trafficking, while in some instances domestic corruption or internal political realities negate even modest efforts.

I have been very concerned by the flare-up of hostilities in the Kashmir-Jammu region and the actions taken by the Moslem separatists. I am also pleased, however, that both the Pakistani and Indian governments have taken steps to avoid confrontation thus far.

Question: Has your command been involved to date on any of the diplomatic or military maneuvering in this region?

Answer: In all of our contacts with senior Pakistani military officers, we have emphasized the importance the U.S. Government places on a peaceful solution to the Kashmir crisis. It remains a volatile issue that could rapidly escalate into armed conflict. However, the Pakistani senior leadership has displayed restraint in their actions and acknowledged that a clash is not in the best interests of either nation. We believe the Pakistanis will do everything possible to limit the possibility of an armed confrontation with India.

Kashmir

Question. Can you detail for the record the specific steps that both governments have taken to avoid this controversy?

Answer. [Deleted]

Question. What are the prospects of avoiding an escalation in the tensions in the region at this point?

Answer. [Deleted]

Pakistan-Iran Relations

Question. On a related subject, you allude in your testimony to the relationship that Pakistan has with the Iranian military. What is the extent of the relationship between these two countries which was recently reported in Jane's Defense Weekly?

Answer. [Deleted]

Aid to Pakistan

QUESTION: Do you have any insight into why the State Department decided to cut its budget request for Pakistan below the levels it requested in both FY90 and FY89?

ANSWER: Demands on our assistance resources, particularly on Economic Support Funds (ESF) have increased significantly, while the total amount of ESF is limited. To meet these demands, we simply had to reduce some existing ESF programs in the FY 91 request. Request levels for development assistance and PL-480 remain at current levels, and the request for FMF for Pakistan is close to the actual FY 90 funding level. Together, these programs add up to a $569 million request. At this level of funding Pakistan will remain among the top 5 recipients of U.S. assistance. Pakistan merits our continued support as a new democracy struggling to build democratic institutions as a proven friend in a strategically important part of the world, as a staunch supporter of the Afghan people's aspirations for self-determination, and as a partner in the war against narcotics.

Arab States and Israel

QUESTION: You speak very highly of Egypt's leadership in the region and the positive developments of its readmission into the Arab League.

Since Egypt was readmitted into the League while still maintaining its posture of peace and recognition of the state of Israel, what is the possibility of other Arab states eventually taking similar steps regarding making peace with Israel, or recognizing its existence?

ANSWER: As the Secretary of State stated in his AIPAC speech of May 1989, and as we have emphasized in our diplomacy throughout the year, the Arab world should take concrete steps toward accommodation with Israel. The US has pressed other Arab states to follow Egypt's example by recognizing the state of Israel and entering into peaceful relations with it; we hope they will do so. We think this is most likely to occur in an environment in which progress is made toward a comprehensive settlement of the Arab-Israeli dispute.

Question: As the maintenance of the state of war with Israel remains a major obstacle to future foreign military sales or possible increases in military assistance, what specific actions have you and the people in your command taken in relating U.S. concerns about the state of war and lack of acknowledgement of Israel's existence?

Answer: Throughout the range of its military-to-military contacts, USCENTCOM supports the goals of the Middle East Peace Process, which include normalization of Arab-Israeli relations.

Question: I have joined many of my colleagues in expressing concern about the rearmament of Iran and Iraq since the ceasefire in their hostilities. How long can we expect the present ceasefire to hold until, as you speculate, the "cold" war becomes "hot" again?

Answer: Current Iranian strategy places a premium on economic recovery. [Deleted]

Iraq, for its part, is attempting an economic expansion program to repay war debts and improve its economic position. The cease-fire is currently holding because it is advantageous for both countries. As both sides recover, however, the "need" to observe the cease-fire will lessen. If fundamental problems between the two countries have not been worked out by then, war once again becomes a distinct possibility.

Question: What specific targets can you imagine that Iraq has in mind -- in the long term, perhaps -- with its investment in and development of a long-range ballistic missile?

Answer: [Deleted]

Question: Has any serious thought been given to working with countries in the region to build-down their huge military stockpiles instead of continuing to build them up? Has the thaw in U.S.-Soviet relations translated itself in any way to a similar thaw in the region?

Answer: The region is home to three major and historical international conflicts: Indo-Pakistani, Iran-Iraqi, and Arab-

Israeli. The beginning of U.S.-Soviet military drawdowns has not diminished the determination of the parties to those conflicts to defend their respective nations' rights in the event of hostilities. Other states of the region, some of them possessors of immensely important resources, also see a continuing need to defend their national integrity in this area of instability, and have consequently armed to provide for their defense needs. USCENTCOM agrees with the premise that the region's armaments can only be reduced effectively through political solutions to the major conflicts. Even then, the legitimate defense needs of the region's governments would require a certain level of arms. However, the recent trend toward proliferation of nonconventional weapons and missile delivery systems is most troublesome. USCENTCOM has supported and participated in efforts to urge restraint on local governments, as well as restrictions by industrialized nations' suppliers.

Question: You state in your testimony that "USCENTCOM believes the potential for direct conflict with the Soviets in this region has been significantly reduced for the near term." At the same time, you regularly refer to the increased Soviet presence in the region, which indicates a possible threat to U.S. interests over time. To what do you attribute the reduction of the Soviet threat in the region?

Answer: The reduced Soviet threat is a result of their experience fighting a no-win war in Afghanistan and a preoccupation with internal problems. For the Soviets to solve their dire economic problems and to calm nationalist movements, international stability and goodwill are prerequisites. As a result, Soviet foreign policy has changed from confrontation to cooperation, emphasizing political solutions to regional issues. Rather than militarily invading Iran to attain political objectives and risking another Afghanistan-type war, the Soviets have opted to pursue an aggressive political campaign to improve relations and increase influence with Iran and other USCENTCOM AOR countries. Nevertheless, while Soviet intentions toward the region presently appear benign, its military capability in the neighboring Southern Theater of Military Operations remains significant and justifies close monitoring on a continuous basis.

Question: Is not the increase in Soviet ethnic disturbances, especially among the Islamic minorities, a reason for U.S. concern and caution at the present time?

Answer:

[Deleted]

Question: Is it for this reason that we have read reports about a continued drawdown in the U.S. presence in the region under Operation Earnest Will?

Answer: No. Although one of the stated National Security Objectives of Earnest Will was to "minimize Soviet influence in the region", it was only one of four primary objectives. The other three objectives were:

- To protect the principle of Freedom of Navigation in international waters.
- To maintain the free flow of oil through the Strait of Hormuz.
- To protect our Gulf Arab friends from Iranian hegemony.

These objectives were accomplished by providing protection to all U.S. flag vessels, including those formerly registered in Kuwait. Other merchant vessels were granted similar protection on a case-by-case basis. The continued drawdown of U.S. forces in the region simply represents force structure adjustments commensurate with the reduced threat since the Iran-Iraq cease-fire.

Question: How does this reduction in both the U.S. presence and the Soviet threat translate into increased activities such as combined exercises which, I believe serve us very well as "the third pillar of our peacetime strategy" without the political and budgetary constraints attendant with military sales and foreign military assistance?

Answer: U.S. presence in the form of Joint Task Force Middle East (JTFME) has been reduced as a result of the reduced threat in the Persian Gulf. Likewise, the probability for a near-term U.S.-Soviet military confrontation is low. However, continuing regional conflicts threaten our friends in the AOR; and they still need our help to provide for their legitimate defense. Our peacetime strategy seeks to demonstrate the depth of U.S. commitment to national interests and regional needs through the three pillars of presence, security assistance and combined exercises.

Our combined exercise program supports the strategy by maintaining our forces at standards of readiness required to respond to regional contingencies -- while allowing us to evaluate host-nations' support structure and their ability to contribute to coalition warfare. A strong combined exercise program is, in itself, presence in the region and demonstrates our resolve to support our friends. While political and budget constraints are recognized, a viable security assistance program and a responsible arms transfer policy are also essential pillars of our peacetime strategy. They result in an increased U.S. presence and greater equipment interoperability and further demonstrate our commitment to the region.

As recent world events have shown, regional stability cannot be expected until nations are confident that their defensive needs are met or that the threat has gone away. Thus, friendly nations in the region understand the reason for reducing JTFME presence, but they do not understand reduced U.S. security assistance or restrictive arms sales policies which, in concert, fail to provide for their legitimate defense needs. In instances where security assistance funding has been reduced, combined exercises assume an added importance and should be maintained, and when mutually beneficial, even increased. However, this should not be construed as meaning that combined exercise funding is a substitute for security assistance.

QUESTIONS SUBMITTED BY SENATOR BUMPERS

Question: Are active duty Israeli military personnel, or civilians employed by the government of Israel, providing military planning or other assistance to the Ethiopian government? What military equipment has Israel provided Ethiopia? Has Ethiopia paid for it in hard currency, soft currency, has it been given, or how has it been paid for? Are Israelis taking part in any way in any of the Ethiopian government's fighting against the Eritreans, Tigreans, or other rebel groups or skirmishes with Somalia or any other country?

Answer: [Deleted]

Question: Is there any relation between Israeli aid of any kind to Ethiopia and the desire of Israel to relocate Ethiopia's Jewish population to Israel?

Answer: [Deleted]

Question: If the Iran-Iraq war breaks out again, do you believe that Kuwait would want the protection of the U.S. Navy again and would want reflagging of their tankers to occur again? What did we learn from our previous experience that would help us do a better job in the future of our escort operations? Would you be comfortable with our minesweeper capabilities if such a circumstance would occur again, or would you need allied assistance again?

Answer: Should the Iran-Iraq War again break out with both sides attacking tankers transiting the Gulf, it is reasonable to assume that Kuwait would consider requesting U.S. support. It should be noted that operation Earnest Will, while reduced in scope, continues to protect U.S. flagged ships and provide distress assistance for the ships of other nations on a request basis. The Rules of Engagement controlling those operations are in place.

Lessons learned during our escort operations should hold us in good stead should hostilities again breakout in the region. The establishment of the Joint Task force Middle East (JTFME) streamlined the command and control of all forces assigned to support Earnest Will. It created a clear chain of command from the CINC and the National Command Authority to the Commander, JTFME.

Another lesson involved the importance of deconfliction procedures. After the inadvertent Iraqi attack on the USS STARK in May 1987, it became increasingly clear that future unintentional attacks against U.S. forces were possible. To preclude a recurrence of the STARK incident, deconfliction procedures were developed; the Rules of Engagement were strengthened so that each commanding officer was clearly authorized to defend his command; and readiness conditions were modified to provide increased unit protection when operating in high-threat areas. However, in a fluid environment, constant attention is required or the procedures lose their effectiveness as new forces and weapons are introduced. The bottom line is this -- when U.S. forces are operating in the vicinity of belligerents, we must develop and coordinate the necessary procedures to prevent inadvertent attacks.

One of the most innovative tactical concepts adopted during Earnest Will was that of the mobile sea base (MSB). Although many operational lessons were learned, the most significant was that the

MSB concept has utility for operations other than Earnest Will. Together with the effective use of Army armed helicopters operating from Navy combatants, the MSBs allowed for inherent mobility, flexible task organization and economy of force characteristics. This proven concept has great potential for use during future joint operations in a low-intensity conflict.

[Deleted]

The need for host-nation cooperation and interoperability cannot be overstated as a requisite for successful U.S. operations in the area. Strong peacetime relationships between the U.S. and moderate Arab nations, bolstered by strong military-to-military ties, combined exercises and foreign military sales, proved instrumental in our successful operations in the Gulf. The importance of these relationships can only increase in the future.

Mine countermeasures (MCM) in the Persian Gulf involved an extremely complex military operation requiring many platforms. While our MCM operations were effective, they were only directed against an unsophisticated, moored contact mine threat. Had the threat been more sophisticated, additional forces, with enhanced countermeasures capabilities, would have been required. Since almost any country in the region has, or can easily acquire, the capability to effectively conduct mine warfare, the U.S. needs to develop and maintain MCM forces that are capable, rapidly deployable and sustainable.

[Deleted]

QUESTIONS SUBMITTED BY SENATOR SPECTER

Question: Last year before this committee you stated that one of your National and Regional Objectives was to "Prevent the spread of nuclear, chemical and biological weapons." On pages two and four of your opening statement here today, you emphasize an increasing threat to the military balance in this region due to the proliferation of long-range missiles and nuclear, chemical and biological arms. Yet, despite your highlighting this problem, I notice that preventing of the spread of these weapons is no longer included as one of the Central Command's National or Regional Objectives: Does the absence of this objective imply that you no longer consider this to be part of the Central Command's mission?

Answer: The objective of preventing the spread of these weapons remains both a national and regional objective. When our opening statement was prepared, this objective was administratively contained in a classified paragraph of the newly revised listing of national security objectives. Since our opening statement was developed as an unclassified document in order to permit the widest possible dissemination, this objective, although still valid, was not specifically mentioned. Subsequently, the paragraph was declassified.

Question: If it is still part of your mission, what actions are you taking to curtail the spread of ballistic missiles and/or non-conventional arms?

Answer: Efforts to limit the proliferation of these weapons are conducted primarily through bilateral discussions and through the Conference for Disarmament at Geneva. We are contributing to these efforts through our direct discussions with regional friends. We make it clear that the U.S. is opposed to the spread of these weapons and that we consider them to be a destabilizing threat to peace and security throughout the region. We strive to build confidence in a view that conventional systems would be sufficient to defend against regional threats and that the acquisition of non-conventional weapons should not be a necessary part of force modernization plans.

Question: Are your initiatives in this area being coordinated with the State Department, specifically the Political/Military Affairs Bureau, which has lead responsibility for developing the U.S. course of action in response to missile proliferation issues?

Answer: The Secretary of Defense coordinates the efforts of the Defense Department with the Department of State. We work through the Joint Staff and the Office of the Secretary to ensure a coordinated effort in our area of responsibility. When we are working on a military-to-military or military-to-political basis with a regional friend, our U.S. Ambassador is a prime participant. The ambassador is intimately involved and aware of what is being discussed with the country's leaders. The results of our discussions are provided in detailed messages to the Secretary of State, the Secretary of Defense and the Chairman, Joint Chiefs of Staff.

SUBCOMMITTEE RECESS

Senator **Inouye**. Well, this concludes the testimony from Admiral Kelso, General Schwarzkopf, and General Johnson. In behalf of the committee I would like to thank all of you for your many years of service to our Nation and to thank you for your providing us with special insight into the matters before us at this moment.

The subcommittee will stand in recess until Thursday, March 8, at which time we will receive testimony from the Commander in Chief of the Special Operations Command and the Commander in Chief of the Southern Command.

With that, I thank you very much, sir.

General **Schwarzkopf**. Thank you, Mr. Chairman. I thank the committee for their support.

[Whereupon, at 10:55 a.m., Tuesday, March 6, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1991

THURSDAY, MARCH 8, 1990

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met, in classified session, at 9:06 a.m., in room SD-124, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, Bumpers, Stevens, D'Amato, Rudman, and Cochran.

DEPARTMENT OF DEFENSE

U.S. SOUTHERN COMMAND

STATEMENT OF GEN. MAXWELL R. THURMAN, U.S. ARMY, COMMANDER IN CHIEF, SOUTHERN COMMAND

INTRODUCTORY REMARKS OF SENATOR INOUYE

Senator INOUYE. I am certain all of us are aware that this is a closed hearing at the top secret level, and I assume that all of us have been appropriately cleared.

This morning we will continue our review of fiscal year 1991 funding for DOD and we will also continue our practice of seeking the observations and the views of our Nation's senior force commanders, the CINC's. This morning we have two unified commands represented here to discuss U.S. security interests in the Western Hemisphere, our developing capabilities in unconventional warfare, and the results of recent developments in Panama and Nicaragua. These commanders are primarily responsible for geographic areas outside our traditional alliances in Europe and the Pacific, and for developing capabilities suited more to the Third World and specialized situations.

As we adjust to a rapidly transforming world political and military terrain, your testimony here this morning is particularly welcome. So on behalf of the committee, I am pleased to extend a warm welcome to Gen. Maxwell Thurman, the Commander in Chief of U.S. Southern Command. General Thurman will be followed this morning by Gen. James Lindsey, Commander in Chief of the U.S. Special Operations Command.

Today's hearing will be the first time that General Thurman and General Lindsey have testified before the committee since Operation Just Cause and its followup operation, Operation Promote Liberty, were conducted in Panama.

So your testimony on these operations will be of great interest to this subcommittee. Before going further, on behalf of the committee may I offer my congratulations to you and to the fine men and women under your command who participated in this operation. There is broad recognition that all of you did an outstanding job in planning and execution and in the disciplined manner in which the operation was executed so as to minimize casualties and excessive damage.

In addition to the Panama operation, we would like to hear your views on your military strategy, the critical deficiencies both in operations and in equipment that you are facing.

As CINCSOUTH, General Thurman is based in Panama, with an enormous area of responsibility, all of Central and South America. While it includes only a limited U.S. presence in peacetime, about 13,600, we rely heavily on the regular participation of thousands of Active, National Guard, and Reservists each year in the region.

Needless to say, you have a big job to defend the canal, overseas security assistance throughout the region, and build up our capabilities in counterterrorism and in the drug war. You have to do this in cooperation with the Andean nations in particular.

So on behalf of the subcommittee, I welcome you, sir.

General THURMAN. Thank you, sir.

Senator INOUYE. I understand that you are most comforable in speaking from your slide presentation, and we look forward to that.

Your full statement has been received and it has been made part of the record. So proceed as you wish, sir.

General THURMAN. Thank you very much, Mr. Chairman.

First of all, on behalf of all the 27,000 men and women of the Army, Navy, Air Force, Marines, and Coast Guard, we appreciate your kind remarks with respect to Just Cause. We ought to all be proud of the great young servicemen and servicewomen who joined our Armed Forces and who are ready to go—well-trained, quality people that do the job well.

I have a set of charts and I think it would be useful if I could ask you to include those in the record. I would like to turn through a few of them to set the tone and then answer any questions that you may have, if that would be convenient for you.

Senator INOUYE. The charts have been made part of the record, sir.

General THURMAN. Thank you very much, sir.

SOUTHERN COMMAND OBJECTIVES

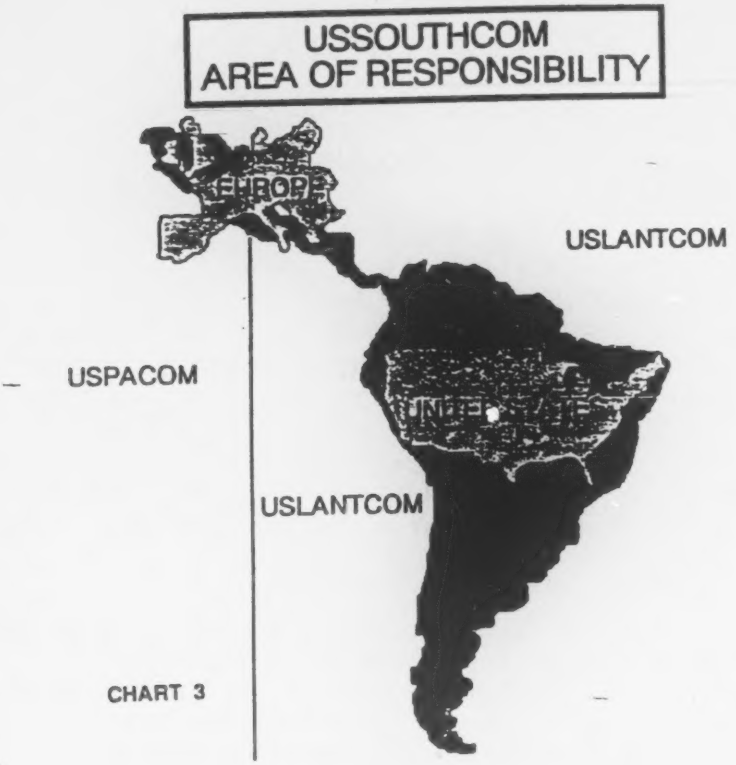
- PROMOTE AND SUPPORT DEMOCRATIZATION
- PROTECT U.S. LIVES AND PROPERTY
- DEFEND THE PANAMA CANAL
- ASSIST HOST NATIONS TO DEFEAT NARCOTRAFFICKING
- ASSIST FRIENDLY NATIONS TO PROVIDE FOR THEIR OWN SECURITY AGAINST TERRORISM, SUBVERSION AND INSURGENCIES

CHART 2

STRATEGIC OBJECTIVES

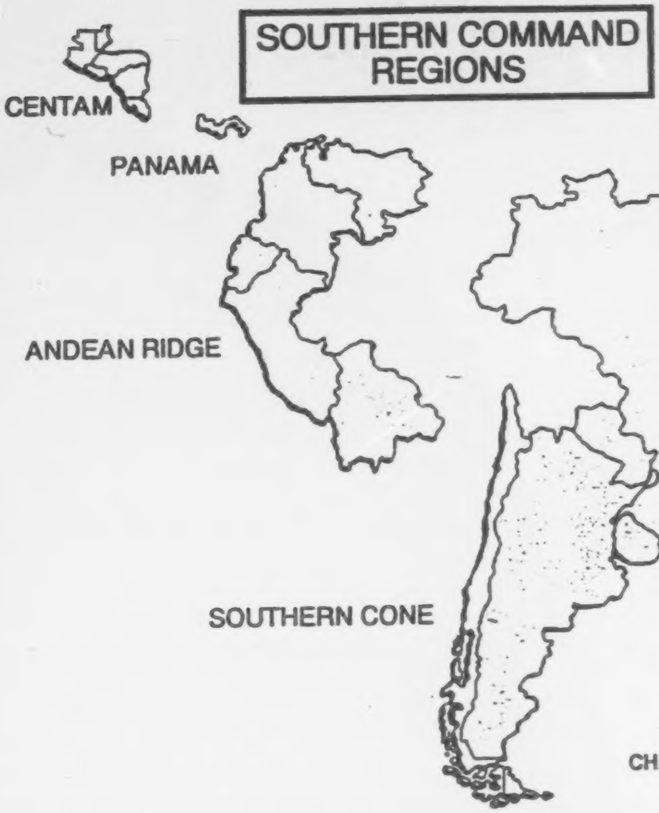
Chart No. 2 lists the strategic objectives of the U.S. Southern Command. Those are the things I have been told to do. Two of them are directly related to the Panama Canal Zone and Panama.

The new mission which was given to us by the Secretary of Defense on September 18 was to assist host nations to defeat narcotrafficking. Of course, we are all trying to accomplish the last goal assisting friendly countries in doing their work in the war on drugs.


USSOUTHCOM
AREA OF RESPONSIBILITY
EUROPE
USLANTCOM
USPACOM
UNITED STATES
USLANTCOM
CHART 3

USSOUTHCOM AREA OF RESPONSIBILITY

Chart 3 gives you a notion of how big the area is in Central and South America. Sometimes we lose sight of how big South America is. And also note on that chart, sir, that I do not have responsibility for any water. My distinguished colleague, Adm. Frank Kelso, is responsible for the water on both sides of Central and Latin America.


SOUTHERN COMMAND REGIONS
CENTAM
PANAMA
ANDEAN RIDGE
SOUTHERN CONE
CHART 4

SOUTHERN COMMAND REGIONS

The way I divide up my territory is on chart 4. I divide it into four segments: Central America, Panama as a separate item, the Andean Ridge, because of the emphasis on counterdrug business; and the rest of Latin America. If I may, let me spend about 5 minutes and take you through each one of those regions quickly, and then I will answer any questions.

CHART 5

REGIONAL CONCERNS

- DRUGS:
  100% OF COCAINE
- DEMOCRATIZATION:
  PREREQUISITE FOR ECONOMIC
  AND SOCIAL DEVELOPMENT
- IMMIGRATION:
  98% OF ILLEGAL IMMIGRANTS APPREHENDED
  IN 1989 CAME FROM LATIN AMERICA
- DEBT:
  4th LARGEST TRADING PARTNER, $450B IN DEBT
- ACCESS:
  45% OF ALL TRADE, 50% OF OIL &
  60% OF NATO RESUPPLY THRU GULF OF MEXICO

REGIONAL CONCERNS

If you turn to chart 5, you will see five items that I look at as the reason why we have many concerns in the area. It is the place where 100 percent of the cocaine comes from; some marijuana also originates there.

The process of democratization is what we are all trying to stand up for, and the good news is we had a successful election in Nicaragua, but that is not without some worrisome events that are going on down there even as we speak. Mrs. Chamorro does not take office until April 25.

In the area of immigration 98 percent of illegal immigrants entering the United States last year came from Latin America. We apprehended some 927,000 illegal immigrants from Latin America last year and the Immigration Service estimates there is another 1 million we did not get.

Latin America is our fourth largest trading partner after Europe, Japan, and Canada. And yet, the countries down there are besieged by enormous debt. That affects everything that is going on, including the package that now sits before the Congress with respect to assisting Panama to the tune of another $500 million. I hope it will pass quickly so that we can get Panama started on taking care of its debt and arrearages, get the economy back on its feet, and qet people back to work.

With regard to access, if we had to go to war anywhere in the world, the Gulf of Mexico is important to us.

So let me talk about each one of those little segments for a couple of minutes.

CENTAM SITUATION

- CONTINUING CUBAN SUPPORT FOR INSURGENCIES
  - ON-GOING INSURGENCIES
    - •• EL SALVADOR - HOT
    - •• GUATEMALA - WARM
    - •• HONDURAS - LUKE WARM
  - NICARAGUAN ELECTION (25 FEB) - GOOD NEWS
  - EMERGING DEMOCRACIES
  - CENTAM PRESIDENTS' PEACE FORUM
  - DRUG TRANSITING
  - ECONOMIC DIFFICULTIES

CHART 6

CENTRAL AMERICA SITUATION

On chart 6, I address the Central American situation. [Deleted.]

Most of the countries down there believe that the stimulus for the ongoing insurgencies is clearly the Cuban connection. El Salvador is very hot with an active insurgency and armed conflict going on there, although there are some peace initiatives between the FMLN and the El Salvadoran Government currently ongoing through the auspices of the United Nations as a result of President Cristiani' s visit up here last month.

In Guatemala, there is a warm insurgency, [deleted]. The Guatemalans have an election coming up this fall, and that will be a major event.

Honduras is lukewarm. I was in Honduras the day before yesterday, and in El Salvador, trying to take stock of the most recent event that is sort of a Richter scale event down there, which is the victory by Mrs. Chamorro in the Nicaraguan election, and to assess whether the Sandinistas will in the next 6 weeks undermine or make it convenient to turn over power to Mrs. Chamorro.

All of these countries are emerging democracies. There will be a continuation of the Central American Presidents' peace forum; for example, the Tela conference, the Tesoro Beach conference, Escuapelas 2, Contadora. There will be another one of those at some point.

As with other areas in Latin America, this area has drug transitting problems and economic difficulties.

CHART 7

NEAR-TERM OBJECTIVES
FY 91

- CONDUCT 6 MAJOR EXERCISES TO DEMONSTRATE U.S. CAPABILITIES AND RESOLVE
- CONDUCT 151 U.S. EXERCISES (TRAINING, CONSTRUCTION, MEDICAL & LOGISTIC)
  - ENHANCE READINESS OF U.S. FORCES
  - PROVIDE HUMANITARIAN RELIEF AND ASSIST NATION BUILDING
- PROVIDE FRIENDLY NATIONS WITH INTELLIGENCE SUPPORT
- COMPLETE CARIBBEAN BASIN RADAR NETWORK
- PROMOTE ADDED EMPHASIS ON COUNTERNARCOTICS EFFORTS
- CONTINUE MILITARY ASSISTANCE TO EL SALVADORAN ARMED FORCES

TOOLS - FY91

SECURITY ASSISTANCE (LESS ECONOMIC SUPPORT FUND)	$ 138.7M
• FOREIGN MILITARY FINANCING	($ 135.5M)
($ 0.0 FOR C-N)	
• INTERNATIONAL MILITARY EDUCATION AND TRAINING	($ 3.2M)
CONUS-BASED FORCES	
• FY91 DEPLOYMENTS - 8,200 ACTIVE/GUARD/RESERVE	

NEAR-TERM OBJECTIVES—FISCAL YEAR 1991

Chart 7 depicts how much money and the effort that is going into that area from my perspective. My command has about half a billion dollars' worth of money associated with it, $452 million, and I will show you that in a moment.

The way I do work in Central America, in addition to the military groups that work in each one of the countries, is through military exercises—151 exercises going on in 1991 as we look ahead. They enhance the readiness of U.S. forces should they have to deploy there, and these forces are heavily involved in humanitarian relief and assistance.

We also have the Caribbean basin radar network that is being built in that region. That affects several of the countries in Central America. There is also a continued high level of support to the El Salvadoran armed forces.

The tools I have to accomplish these missions, as you will see at the bottom of my chart, are principally tools associated with the Security Assistance Program. This consists of about $137 million in fiscal year 1991 dollars—at the bottom in the little box there—in military assistance and that goes for the most part into El Salvador and Honduras. As you know, I still maintain [deleted] from which we operate to support exercises in the region. There is also a small amount of military education and training funding for those countries.

I am projecting deployment of about 8,200 Active, Guard, and Reserve personnel to the area. Of interest to you is the fact that today

I have about 2,000 people in Honduras now building roads and carrying out repair of runways and those kinds of activities.

CHART 8

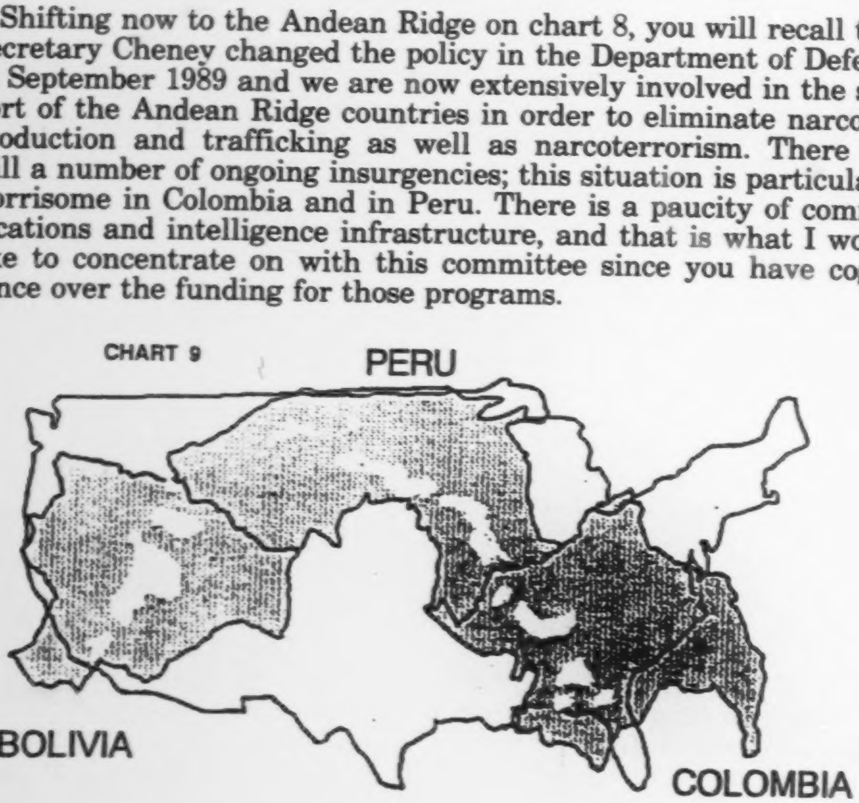
ANDEAN RIDGE SITUATION

- SIGNIFICANT NARCOTICS INDUSTRY
  - PRODUCTION AND TRAFFICKING
  - NARCOTERRORISM
  - THREAT TO DEMOCRATIC INSTITUTIONS
  - VERTICAL INTEGRATION UNDERWAY IN BOLIVIA & PERU
- ON-GOING INSURGENCIES
- PAUCITY OF COMMUNICATIONS AND INTELLIGENCE INFRASTRUCTURE
- DEBT AND DECLINING STANDARD OF LIVING

ANDEAN RIDGE

Shifting now to the Andean Ridge on chart 8, you will recall that Secretary Cheney changed the policy in the Department of Defense in September 1989 and we are now extensively involved in the support of the Andean Ridge countries in order to eliminate narcotics production and trafficking as well as narcoterrorism. There are still a number of ongoing insurgencies; this situation is particularly worrisome in Colombia and in Peru. There is a paucity of communications and intelligence infrastructure, and that is what I would like to concentrate on with this committee since you have cognizance over the funding for those programs.

CHART 9



Turn to chart 9 now and you get a notion of how big the Andean Ridge region is compared to the United States of America. We are trying to cover the region with adequate intelligence assets and, very frankly, that needs a major review here between the Center for Counternarcotics in the Agency, Admiral Studeman in the NSA, and General Soyster in the DIA to make sure we have the adequate intelligence platforms necessary to conduct business down there.

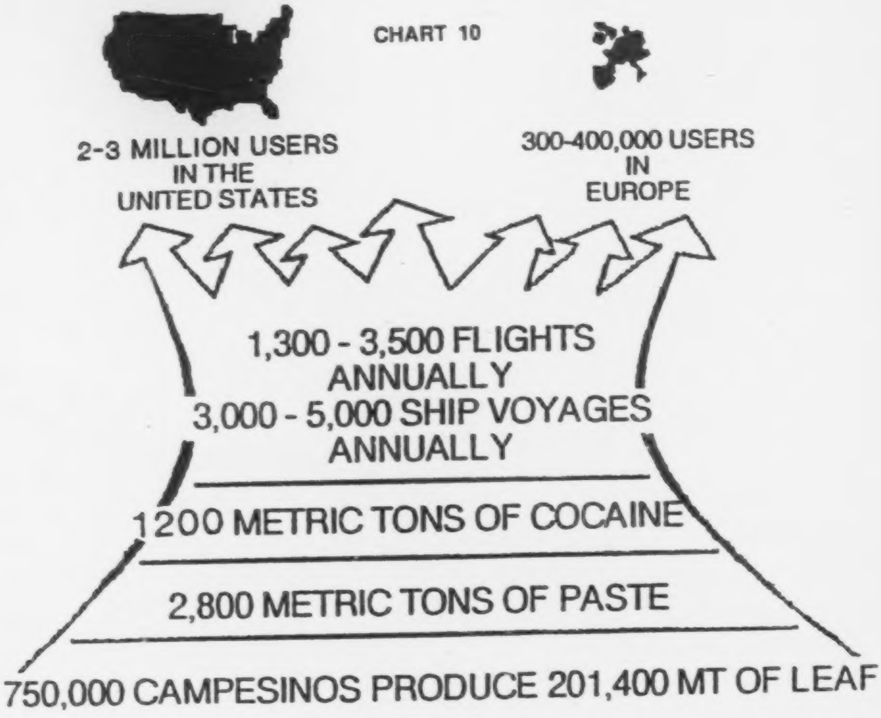


CHART 10

2-3 MILLION USERS IN THE UNITED STATES
300-400,000 USERS IN EUROPE
1,300 - 3,500 FLIGHTS ANNUALLY
3,000 - 5,000 SHIP VOYAGES ANNUALLY
1200 METRIC TONS OF COCAINE
2,800 METRIC TONS OF PASTE
750,000 CAMPESINOS PRODUCE 201,400 MT OF LEAF

DRUG SITUATION

Chart No. 10 shows you what the drug situation is down there. You have anywhere from 750,000 to 1 million campesinos producing the leaf, then conversion into paste ultimately results in 1,200 metric tons of finished cocaine being produced down there.

When I went down on September 30 to take command, the estimate was that there were only 450 tons of cocaine being produced. Five months have elapsed, and the estimates now indicate that more like 1,200 tons of cocaine are being produced. That is the reason you can have a 20-ton cocaine seizure in L.A. and the price doesn't increase in the U.S. marketplace.

To tell you that President Barco is doing a terrific job is an understatement. He has driven the leaf price down in Bolivia and Peru by about 80 percent. When I went there on October 1, leaf price was about $50 a hundredweight. Now it is down to $10. He seized a lot of aircraft and that put the clamps on the cartels in Colombia, thereby affecting the leaf price in Bolivia and Peru, which will in turn cause the campesinos to shift to other crops.

The neck-down that occurs in Colombia is important, because once you put it on ships or aircraft you have a terrible problem trying to track it all down. Multiply each one of those ships by anywhere from 50 to 2,000 containers and you get a notion of what it takes to try to search out all that stuff going overseas.

CHART 11

U.S. MILITARY COUNTERNARCOTICS POLICY

- OLD POLICY
  - ONLY TRAINING
  - ONLY LOW THREAT AREAS
- NEW POLICY
  - ADDS OPERATIONAL SUPPORT
  - PERMITS OPERATIONS IN ANDEAN REGION WITH ADEQUATE SECURITY
  - SECURITY ASSESSMENT REQUIRED
  - DOD PERSONNEL WILL NOT ACCOMPANY HN FORCES ON FIELD OPERATIONS

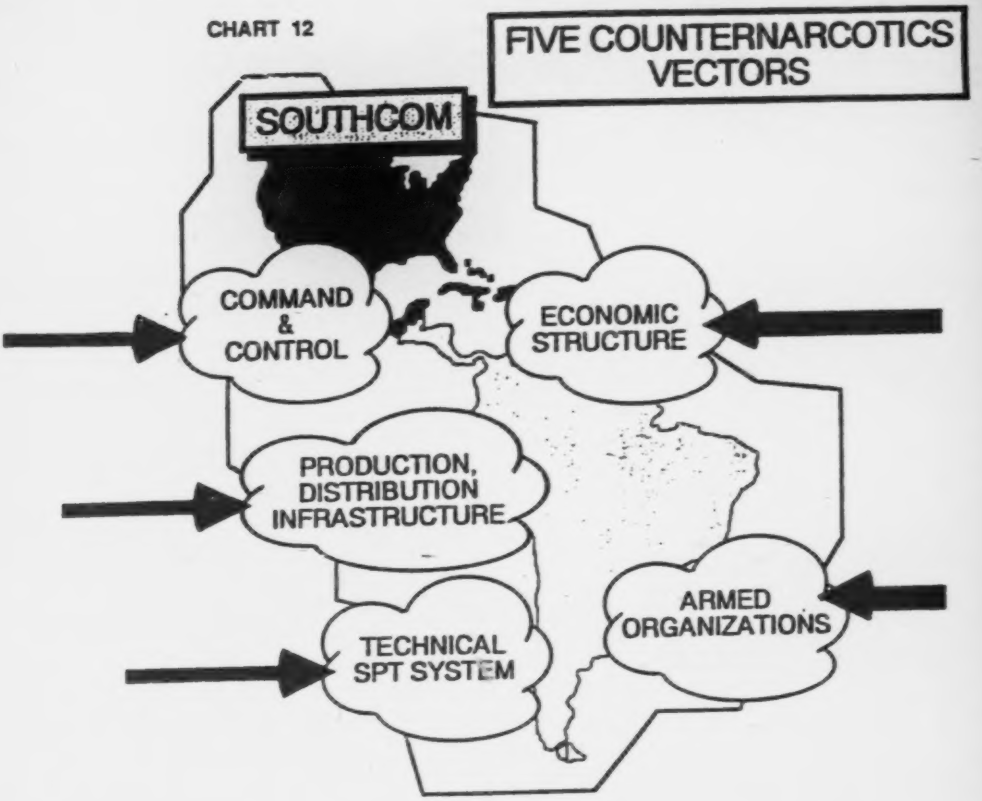
COUNTERNARCOTICS STRATEGY

On Chart 11 is the counternarcotics strategy approved by the Secretary of Defense, quite a change in policy for us, on September 18. The Carlucci-Weinberger policy is up at the top under "old policy." The Cheney policy is down below. It says "adds operational support" [deleted].

It permits me [deleted] training operations in the Andean region as long as I have adequate security. And incidentally, [deleted]. Security assessment is required in order to do all that, and we have made those.

And as a stricture on us, DOD personnel will not accompany host nation forces on field operations. So therefore, I cannot put a U.S. Army pilot in a helicopter seat in carrying out drug interdiction operations.

CHART 12


FIVE COUNTERNARCOTICS VECTORS
SOUTHCOM
COMMAND & CONTROL
ECONOMIC STRUCTURE
PRODUCTION, DISTRIBUTION INFRASTRUCTURE
ARMED ORGANIZATIONS
TECHNICAL SPT SYSTEM

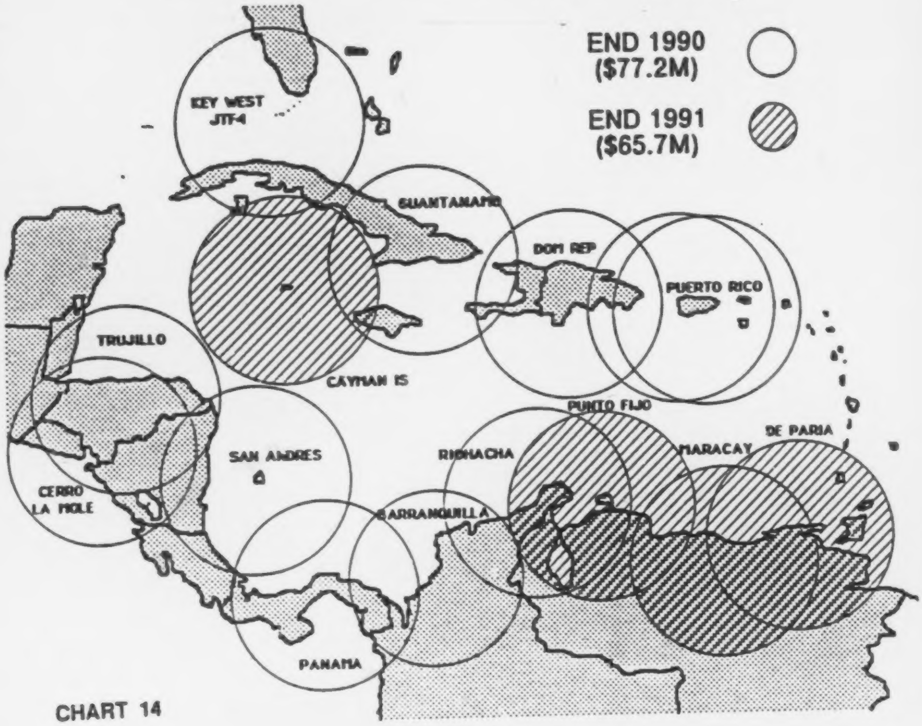
My strategy is on chart 12: attack along the five vectors you see there: economic structure, the command and control, the production, distribution infrastructure, the armed organizations that support them—whether guerrillas or the armed narcotics themselves—and the technical support system. For example, introducing controls on precursor chemicals, bank laundering and the like. I do not do much of that. I support the embassies in doing their work.

CHART 13

USSOUTHCOM PRINCIPLES
FOR COUNTERNARCOTICS EFFORTS

- INTELLIGENCE: THE KEY TO SUCCESS
- MINIMIZE U.S. FORCE PRESENCE
- PROVIDE SUPPORT TO HOST NATIONS
- INTERDICTION FAR FORWARD
- RESPECT SOVEREIGNTY
- PROVIDE EARLY WARNING

On chart 13, the key to all of that is quality intelligence. We have to minimize U.S. force presence in these countries. As a case in point, you know what happened when work was termed "blockade Colombia." They refused to let us bring down the ships of the Atlantic Fleet. So we have to minimize U.S. force presence forward deployed, and instead, provide the support to the host nations, because they have got to do the work in their own country: The goal is to do the interdiction as far forward as we can and choke it off as quickly as we can, and respect national sovereignty in every case.



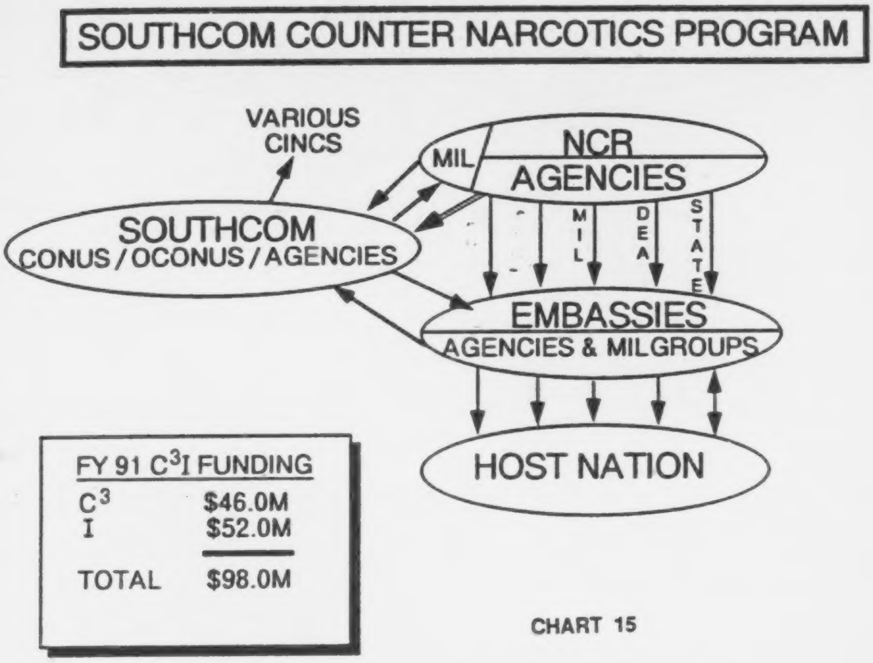
CARIBBEAN BASIN RADAR NETWORK

END 1990
($77.2M)
END 1991
($65.7M)
KEY WEST
JTF4
GUANTANAMO
DOM REP
PUERTO RICO
TRUJILLO
CAYMAN IS
PUNTO FIJO
DE PARIA
SAN ANDRES
RIOHACHA
MARACAY
CERRO
LA MOLE
BARRANQUILLA
PANAMA

CHART 14

CARIBBEAN BASIN RADAR NETWORKS

On chart 14 is the CBRN, the Caribbean basin radar network. Just to give you an insight about that, the open circles there are the coverage areas for radars that will be operating by the end of this year and the hashered circles are for the ones that will be up and operating at the end of 1991. And you will see that in the budget before the committee, sir, is $65.7 million for 1991 for the CBRN. I will be happy to answer any questions about that if you want to come back to it.


SOUTHCOM COUNTER NARCOTICS PROGRAM
VARIOUS CINCS
MIL
NCR
AGENCIES
SOUTHCOM
CONUS / OCONUS / AGENCIES
MIL
DEA
STATE
EMBASSIES
AGENCIES & MILGROUPS
HOST NATION

FY 91 C^3I FUNDING	
C^3	$46.0M
I	$52.0M
TOTAL	$98.0M

CHART 15

COUNTERNARCOTICS PROGRAM

On chart 15, money that flows to me to assist in providing information downward to the embassies and to the host nations is found in my C^3I funding, a total of about $98 million in fiscal year 1991. This chart gives you some notion that there is a multiplicity of agencies in the Washington area that have to send information to the embassies. The embassies then have to work collaterally with the host nation in order to make things happen.

I am out there as an orchestrator, shown at the left on the chart. I look at myself sort of like a close air support guy, trying to aid and assist each one of the embassies doing the work. But the embassy has to do the work, and nothing I do in any one of those countries is done without the expressed approval of the Ambassador. We have a very close relationship with Ted McNamara in Colombia, Bob Gelbard in Bolivia, and Tony Quinton in Peru, and I would not think of sending a soldier, sailor, airman, or marine into any of those countries without the expressed authority and approval of the Ambassador to that country—I have a very tight relationship with them.

[Deleted.]

BOLIVIA
TACTICAL ANALYSIS TEAM

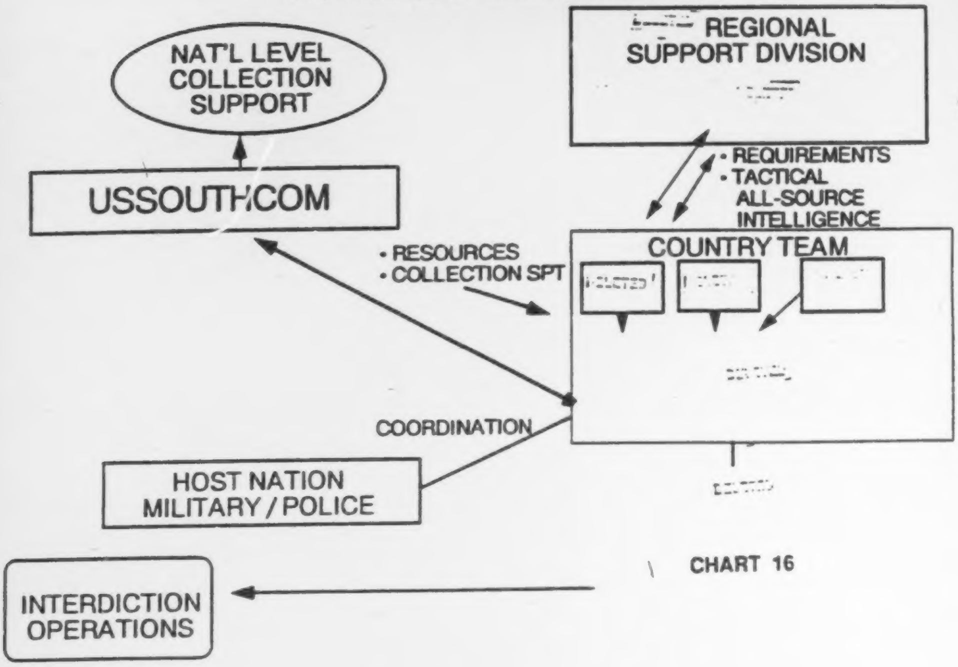

NAT'L LEVEL COLLECTION SUPPORT
USSOUTHCOM
REGIONAL SUPPORT DIVISION
• REQUIREMENTS
• TACTICAL ALL-SOURCE INTELLIGENCE
• RESOURCES
• COLLECTION SPT
COUNTRY TEAM
DELETED
COORDINATION
HOST NATION MILITARY / POLICE
INTERDICTION OPERATIONS

CHART 16

CHART 17

INTELLIGENCE REQUIREMENTS FOR COUNTERNARCOTICS STRATEGY

	FY 91
• ROBUST, SECURE C3	$46.0M
• ENHANCED NATIONAL COLLECTION	$12.0M
•• SIGINT AND IMINT	
• NEAR TERM AIRBORNE SIGINT PLATFORM	$50.0M
•• HF/DF CRITICAL	
• NEW COLLECTION PLATFORM	$41.1M
•• DAY/NIGHT SURVEILLANCE	($39.6M)
•• LONG DWELL	($1.5M)
• TIER II TACTICAL ANALYSIS TEAMS	$.4M
•• VENEZULA, ECUADOR, BRAZIL ARGENTINA, CHILE & PARAGUAY	

INTELLIGENCE REQUIREMENTS FOR COUNTERNARCOTICS STRATEGY

On chart 17 are the requirements for the counternarcotics strategy, and I have indicated to you the fiscal year 1991 budget authority that I am looking for down there. All those are self-explanatory in terms of collection platforms, DF systems required for our work, and the like. So those are the budget items for your staff to take a look at.

CHART 18

NEAR-TERM OBJECTIVES
FY 91

- PROMOTE COMMON PERCEPTION OF NARCOTICS THREAT
  - ASSIST HOST NATIONS IN DEFEATING NARCOTRAFFICKING AND INSURGENCIES
    - •• OPERATIONAL TRAINING SUPPORT AND INTELLIGENCE SUPPORT
    - •• IMPROVE COMMUNICATION AND INTELLIGENCE INFRASTRUCTURE
  - PROMOTE AND SUPPORT DEMOCRATIZATION
  - FOSTER ECONOMIC GROWTH AND STABILITY

TOOLS - FY 91

SECURITY ASSISTANCE (LESS ECONOMIC SUPPORT FUND)	$ 144.2M
• FOREIGN MILITARY FINANCING ($ 137M FOR C-N)	($ 139.0M)
• INTERNATIONAL MILITARY EDUCATION AND TRAINING	($ 5.2M)
C3I PROGRAMS	
CONUS-BASED FORCES	
• FY91 DEPLOYMENTS: 1,000 ACTIVE/GUARD/RESERVE	
• TRAINING ASSISTANCE - NATION BUILDING	

NEAR-TERM OBJECTIVES

On chart 18 then, are the near-term objectives; I am trying to promote a common perception of the narcotics threat. Let me stop there for just a moment and say to you that if we are successful in the big three countries—Colombia, Bolivia, Peru—it will be like the Pillsbury doughboy; we will poke the guy in the belly button in Colombian, and he will spring up in Venezuela or in Ecuador.

So I look at these six countries as becoming heavily involved in drugs. They are already beginning to laterally transfer transitting functions, precursor chemical functions and the like, into Venezuela, Ecuador, Brazil, Argentina, Chile, and Paraguay. I have already met with the country teams in each one of those countries with the exceptions of Brazil and Chile where I am waiting for the new governments to be installed this month and next. I will go there as soon as that happens in order to encourage them to get into the counternarcotics business.

We do all this work in concert with the ambassadors, and the chart just gives you some notion of the money flowing in; that is $137 million worth of counternarcotics funds for 1991 in the current budget. I also have a modest amount of money in international military education and training for this region. I expect to deploy about 1,000 people in training assistance, nation building, and the like in the region for 1991.

CHART 19

SOUTHERN CONE SITUATION

- DEBT AND DECLINING STANDARD OF LIVING
- SPREAD OF NARCOTICS INDUSTRY
- EMERGING DEMOCRACIES
- TREMENDOUS ECONOMIC POTENTIAL

Finally, on the strategy function, chart 19 is the Southern Cone, which includes the big countries down south. Again, onerous debt and the spreading of the narcotics industry, are the foremost problems.

CHART 20

NEAR TERM OBJECTIVES
FY 91

- PREVENT THE SPREAD OF NARCOTICS PRODUCTION AND TRAFFICKING
- ENHANCE PROFESSIONALISM OF MILITARY FORCES AND THEIR SUPPORT TO CIVILIAN POLITICAL INSTITUTIONS
- PROTECT STRATEGIC LINES OF COMMUNICATION
- BUILD ALLIANCES

TOOLS - FY 91

SECURITY ASSISTANCE (LESS ECONOMIC SUPPORT FUND)	$ 2.3M
• FOREIGN MILITARY FINANCING	($ 1.5M)
($ 0.0M FOR C-N)	
• INTERNATIONAL MILITARY EDUCATION AND TRAINING	($ .8M)
C3I	
CONUS-BASED FORCES	
• FY91 DEPLOYMENTS: 690 ACTIVE/GUARD/RESERVE	
• TRAINING ASSISTANCE FOR COUNTERNARCOTIC EFFORTS	

On the next chart, on 20, the tools I have to do business with there again are principally security assistance and a very modest amount of deployments down there; 690 in the Active, Guard, and Reserve doing a variety of things, such as medical readiness exercises, engineer building exercises, and the like, in order to support those countries. But the principal tool that I have is associated with security assistance money.

CHART 21

NEAR-TERM OBJECTIVES

- PROTECT U.S. LIVES AND PROPERTY
- DEFEND THE CANAL
- PROMOTE LAW AND ORDER
- SUPPORT EMBASSY EFFORTS
  - RESTORE BASIC SERVICES
  - DEVELOP GOVERNMENT INSTITUTIONS
  - REVITALIZE THE ECONOMY
- SUPPORT NATION BUILDING

TOOLS

U.S. PRESENCE
- SECURITY AND STABILITY
- HUMANITARIAN AND CIVIC ASSISTANCE

TRAINING ASSISTANCE

Finally, on chart 21, what are the near-term objectives in Panama? And the answer is to protect lives and property, defend the canal, promote law and order, and support the Embassy in setting up governmental institutions, revitalizing of the economy, and taking care of rebuilding the national police down there.

They have taken the people that were formerly in the army in Panama and turned them back into national police, and we are working heavily with the Department of Justice and the ICITAP Program in order to retrain their former military people into police.

USSOUTHCOM
FY 91 BUDGET* ($M)

(LESS SECURITY ASSISTANCE)

	CENTAM	ANDEAN RIDGE	SOUTHERN CONE	TOTAL
C3	17.0	27.6	9.0	53.6
INTEL	50.5	60.5	4.4	115.4
AIR SURVEIL	41.7	29.3	-	71.0
AIRLIFT	54.9	50.0	10.0	114.9
EXERCISES	12.1	29.3	16.6	58.0
MILCON	20.2	1.7	-	21.9
RIVERINE/MINE	1.3	2.7	1.2	5.2
OTHER	4.6	5.0	2.8	12.4
TOTAL	202.3	206.1	44.0	452.4
COUNTERNARC	(19.2)	(141.7)	(30.3)	(191.2)

* BASED ON FY 91 INTEGRATED PRIORITY LIST

CHART 22

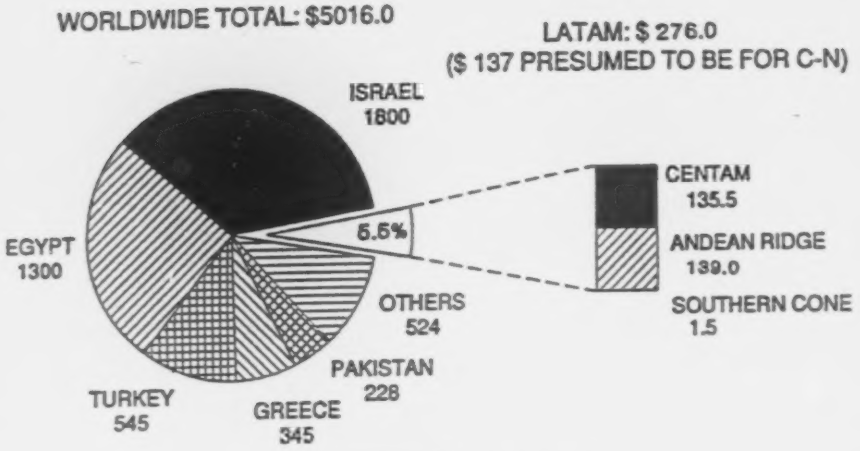
USSOUTHCOM FISCAL YEAR 1991 BUDGET

Chart 22 then summarizes the budgetary process for my command for 1991. It shows you I am about the price of one B-2 bomber, as I understand it. And of that, $191 million is associated with the counternarcotics program.

Let me just tell you that, from my inventory of the dollar values, the DOD budget for 1991 has about $1.2 billion worth of counternarcotics support in it. That includes steaming time for ships and the like. But my portion of it is almost $200 million.

The numbers that I have for 1990, this year that we are executing, is about $880 million for support of counternarcotics, of which I have about $100 million.

FOREIGN MILITARY FINANCING PROGRAM
FY 91 ($M) - PRESIDENT'S BUDGET



NEED FLEXIBILITY FUND
OF $ 50 - 100M

CHART 23

On chart 23 is the principal source for the counternarcotics money flowing down there. For 1991, you will see the Foreign Military Financing Program, one of the elements in the Economic Assistance Program. In Central America there is about $135 million that is not counternarcotics related, but security assistance funding for the Andean Ridge countries is almost all for counternarcotics, to the tune of about $137 million.

If you ask me, the Security Assistance Program is broken. I align myself with Senator Dole. When he was in Panama, I told him that. He came back up here and immediately advocated more flexibility in the Security Assistance Program. I heartily endorse that. As a result of last year's budget hearings, you gave the Chairman of the Joint Chiefs last year—for execution this year—a flex fund of about $50 million. We need $50 to $100 million of similarly flexible funds for security assistance. Right now it is all earmarked, providing almost no flexibility in terms of what we are doing about that.

CHART 24

OTHER BUDGET ITEMS

	FY 91
• QUALITY PERSONNEL	
• TRAINING READINESS	
DELETED	
• AIRLIFT	
•• C-17	$2,700.0M
•• C-27	$114.9M
•• SURVIVABILITY EQUIPMENT FOR MAC AIRCRAFT	$28.0M
• MILCON (AIRFIELD IMPROVEMENTS)	$17.2M

Finally, on my budgetary presentation, sir, chart 24, is just to show the things that I am concerned about. Quality personnel is one of them, as I am sure it is for all CINC's. The work we did in Operation Just Cause tells you of the great young Americans joining our Armed Forces. Even if we draw down the size of the Armed Forces, we have got to protect the quality of the people, and that is no mean trick when you are taking a lot of people out of the Army, Navy, and Air Force at one time.

Training readiness is absolutely essential to having quality forces ready to go. What do I see as my biggest long-term problem down there? Adequate long-dwelling intelligence platforms. [Deleted.] We need longer dwelling airframes to cover the more extensive distances in South America across an area the size of the United States on the one hand, or twice that to get all the way down to the southern part of the continent, because we do not have unrestricted use of landing areas in those countries. Unmanned aerial vehicles offer a promising note, and I am working with DARPA in doing just that.

Again, Just Cause showed us the utility of airlift. The C-17 would be one of the items on my agenda for approval. The C-27 is a STOL aircraft that the Congress has supported, and I am working with the Air Force now to procure. The RFP for the C-27 goes on the street on March 30.

One of the things that has been overlooked in all that is [deleted] and Congress needs to take that on board. You need to protect the Military Airlift Command in aircraft including the C-20 aircraft that Members of Congress ride on traveling in that region, because [deleted].

Finally, some modest milcon improvements, which are about $17 million, for upkeep of the airfields in Honduras.

That is my budget presentation, sir, and I would be happy to answer any questions. And if any of you want to talk about Just Cause, I am happy to go into that as well, sir.

LESSONS LEARNED

Senator **Inouye**. All right, thank you very much, General. As always, your presentation is not only interesting, but one from which we can learn a lot.

Speaking of learning, General Stiner recently held a press conference in which he said, and I am quoting: "Everybody is asking about lessons learned. In my judgment, there were no lessons learned in this operation"—speaking of Just Cause. "I don't think I or my commander or our Armed Forces learned a single lesson, but we did validate a lot of things: that the training program that we have got is exactly as it should be, because people perform in combat exactly what you have trained them to perform."

You mean to tell us that there were no unexpected events, that everything went along as planned, the operation was perfect, no surprises?

General **Thurman**. Obviously there were surprises. Obviously there are lessons learned in my view. I will tell you what we are doing about all of that. We are conducting a series of reviews at each one of the units that participated, bringing information up through the echelons of command that participated from the battalion levels up to the division and corps levels, up to the Special Operating Forces.

Jim Lindsay, who is going to follow me shortly, has already conducted his major review of all the Special Operating Forces. There were about 4,100 special operators in that.

And then all of that is due to me on April 1, and I will conduct my own analysis. I have had my staff people working at it down in each one of the subordinate commands that participated.

My own notion would be there will be lessons learned, everything from maintenance to training to things we could have done better. And clearly, no military operation is perfect. You know that. You have been in the service just like I have, and you know that no operation goes off exactly as planned; we can always do better.

I have been chastized personally for mismanagement of the press. Therefore, obviously I learned a lesson about press management that I will not forget.

Senator **Bumpers**. You ought to try this job for a while. [Laughter.]

General **Thurman**. So I disagree.

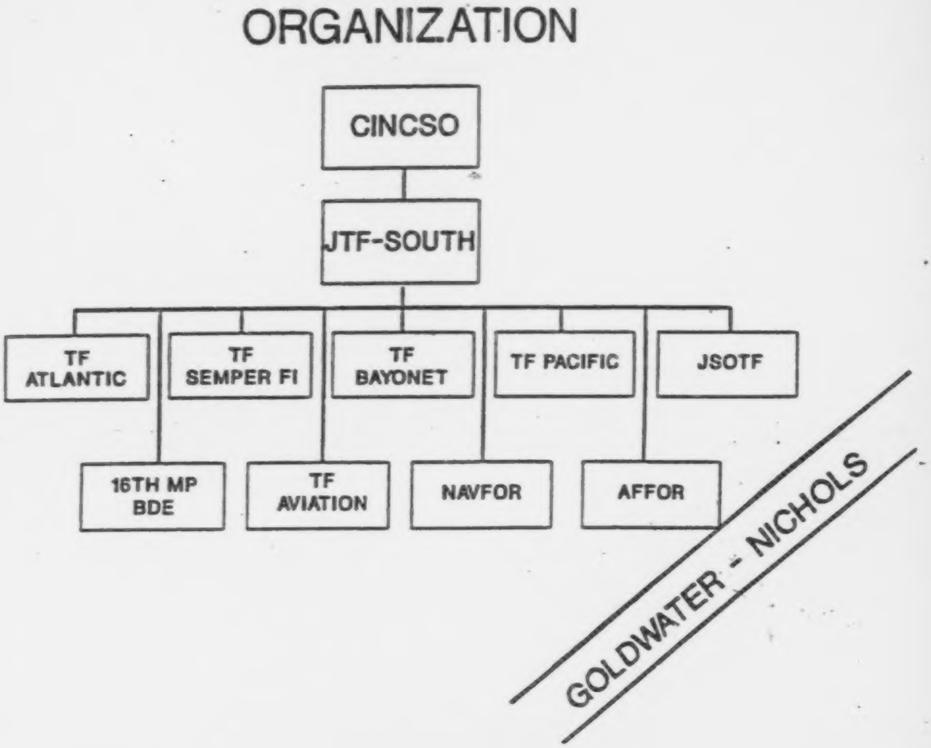
Incidentally, Carl Stiner is a terrific commander and he did validate a number of things. [Deleted.]

We learned a lot, validated a lot, and will learn some lessons we do not want to repeat.

Senator **Inouye**. In response to why you were successful in this operation, you were quoted to have said: "The regional commander laid out a plan. It was approved and he had an opportunity to execute it. It was not nickeled and dimed to death by anyone else."

Does it mean that there was no input or consultation by, say, other nonmilitary people?

CHART 31


ORGANIZATION
CINCSO
JTF-SOUTH
TF ATLANTIC
TF SEMPER FI
TF BAYONET
TF PACIFIC
JSOTF
16TH MP BDE
TF AVIATION
NAVFOR
AFFOR
GOLDWATER - NICHOLS

CHAIN OF COMMAND

General THURMAN. No. Just turn to chart 31 there for a minute. The thing I was trying to imply is that CINC's are tasked to do war planning and contingency planning, and in my case I was tasked to do a variety of contingency plans, as were my predecessors in Southern Command. We developed the plan, we brought the plan to Washington, DC, and we briefed the Joint Chiefs of Staff on it. The Chairman then took it to the Secretary of Defense, and then at the right time they took it to the President of the United States, which happened to be on December 17, after the unfortunate killing of Lieutenant Paz.

Once that plan was briefed up the chain and the order came to execute it, nobody tinkered with the plan. We had had an opportunity to rehearse the plan in every detail. And, therefore, being able to plan the operation, have it approved, rehearse it, and then not have it tinkered with at the fringes when the plan was executed gave us a very high assurance that things would go well.

I had submitted a large number of taskers [deleted] and the intelligence picture was very good.

I worked on a daily basis with John Bushnells, the Chargé in Panama—we did not have an Ambassador at the time; he had been recalled in May. John Bushnell and I worked closely on the elements of that which was important from the State Department's standpoint.

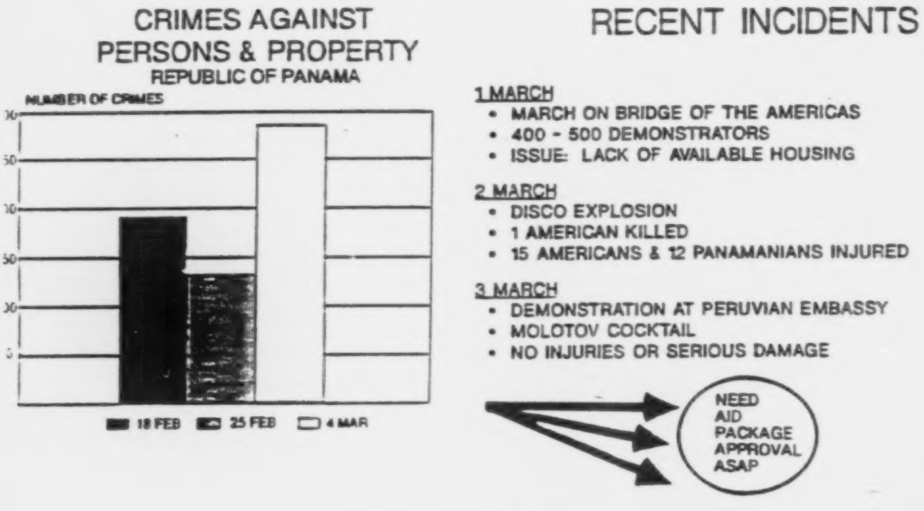
But I did not ask them for advice on carrying out the military side of the plan. The military side of the plan was our plan, and we built the plan and executed it without tinkering from above. No ad hocery.

Senator INOUYE. Earlier this week there was a bombing in a discotheque in Panama.

General THURMAN. Yes, sir.

Senator INOUYE. Should we read anything into it? Should we be in any way concerned? Or do you have any idea as to who was responsible?

CHART 43



RECENT INCIDENTS

1 MARCH
- MARCH ON BRIDGE OF THE AMERICAS
- 400 - 500 DEMONSTRATORS
- ISSUE: LACK OF AVAILABLE HOUSING

2 MARCH
- DISCO EXPLOSION
- 1 AMERICAN KILLED
- 15 AMERICANS & 12 PANAMANIANS INJURED

3 MARCH
- DEMONSTRATION AT PERUVIAN EMBASSY
- MOLOTOV COCKTAIL
- NO INJURIES OR SERIOUS DAMAGE

NEED AID PACKAGE APPROVAL ASAP

RECENT INCIDENTS

General THURMAN. The answer is we should be concerned. For a little resume of that, turn to chart No. 43. There have been three recent events down there.

First of all, you have to put this in the context of the Panamanian situation at the moment. The Panamanians have just brought back the National Assembly. As you know, Panama has a unitary system of government. Panamanians elect the president, two vice presidents, and the Constituent Assembly. Everybody else in between is appointed. Governors are appointed and mayors are appointed. It is a unitary system of government, in concert with their constitution.

The assembly met on March 1, and then there were immediately two demonstrations: one on March 1 where Panamanians said: Gee whiz, we do not have housing yet for those people that were burned out by the so-called Dignity Battalions during Just Cause on the morning of December 20. The demonstration was a blockage of the Bridge of the Americas. That essentially shuts down movement from the provinces to the city and vice versa.

Then on March 2 there was the disco explosion. Nobody claimed credit for that for about the first 24 hours. Then we had a group called the 20th of December Group come forward and say, "We are the officers responsible for that." [Deleted.] This group claimed credit for that.

Now, the jurisdiction for that case is in the hands of the Judicial and Technical Police of the Panamanian Government. [Deleted] who is the principal coordinator of all the agencies of the United States Government in backing up the Judicial and Technical Police investigating this case.

On March 3 there was another demonstration with Panamanians expressing anger at people left in the embassies. As you know, during Just Cause, I surrounded some of the embassies in Panama City. I surrounded the Libyan, Cuban, and Nicaraguan Embassies shortly after the invasion took place in order to preclude Noriega from going into them.

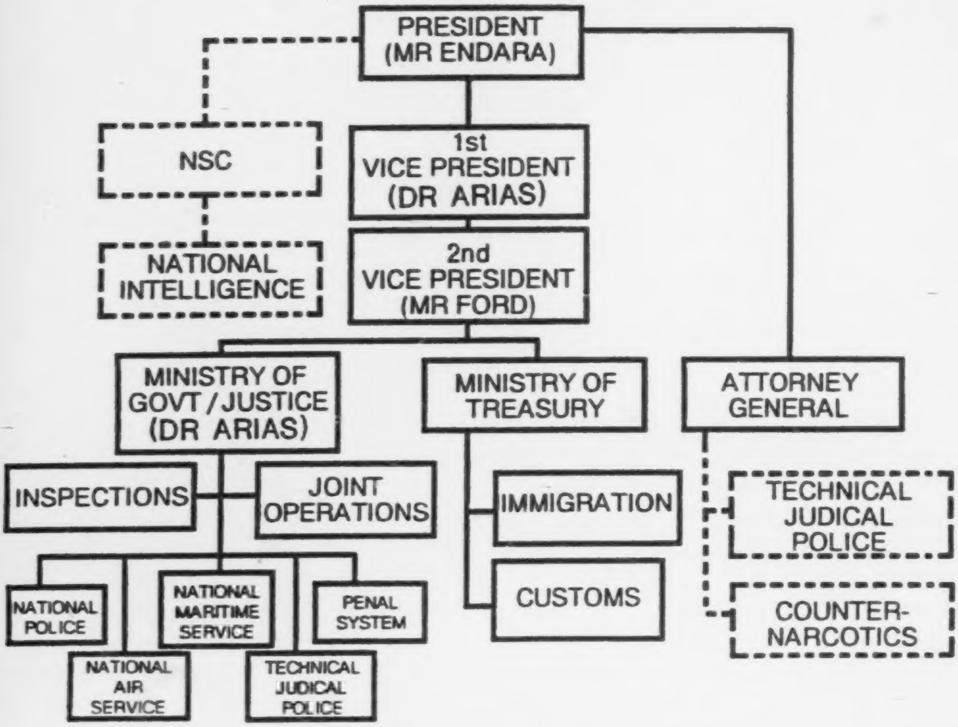
But many other people did go into them, and there are still four hoodlums located in those embassies. Gaitan, who was Noriega's security chief, is still in the Nunciatura, and he's a murderer. There are two others located in the Peruvian Embassy and one in the Cuban Embassy, as I recall it.

But Feliciadad Noriega and others, like Marcella Tason who was in the Peruvian Embassy, have gone to places like Peru. Tason was the personal secretary of Noriega and [deleted].

The Panamanian Government gave some of these people rights to leave the country. So there was a demonstration at the Peruvian Embassy on March 3. Mrs. Giroldi, the wife of the major who led the coup on October 3, and others participated in this demonstration. So some public disorder is going on.

CHART 42

PUBLIC SECURITY FORCES OVERVIEW


PRESIDENT (MR ENDARA)
NSC
NATIONAL INTELLIGENCE
1st VICE PRESIDENT (DR ARIAS)
2nd VICE PRESIDENT (MR FORD)
MINISTRY OF GOVT / JUSTICE (DR ARIAS)
MINISTRY OF TREASURY
ATTORNEY GENERAL
INSPECTIONS
JOINT OPERATIONS
IMMIGRATION
CUSTOMS
TECHNICAL JUDICAL POLICE
COUNTER-NARCOTICS
NATIONAL POLICE
NATIONAL MARITIME SERVICE
PENAL SYSTEM
NATIONAL AIR SERVICE
TECHNICAL JUDICAL POLICE

PUBLIC SECURITY FORCES

Chart 42 bridges into the status of the public security forces. I think that might be of interest to you because I believe that the Senate has a group down there at the moment conducting a GAO look at all of that sponsored by the Foreign Relations Committee.

As the chart shows, Dr. Arias is the, First Vice President, Billy Ford is the economics guru, and Second Vice President. Dr. Arias also has the portfolio as the Ministry of Government and Justice. Underneath him are the National Police, the National Maritime Service, the penal system, the National Air Service, and the Judicial and Technical Police.

Immigration and Customs have already been broken out or the previous PDF operation and now operate directly under the Ministry of Treasury [in the center of your charts]. There is some notion that the Judicial and Technical Police will go to work for the Attorney General.

Senator INOUYE. General, can I be excused for about 2 minutes. I will be right back.

General THURMAN. Yes, sir.

In other words, we went to the Panamanian Government—President Endara, Vice President Arias, and Vice President Ford—and said: "You must break up this former PDF operation so you do not have a re-creation of the PDF as you stand up the new National

Police." There has already been a start at that, because no longer does the National Air Service and the Maritime Service report through the previous PDF command and control apparatus. Vice President Arias controls all of that. He is a civilian, an elected official of the country. We are working closely with ICITAP with respect to that.

So to go back to the event of the bombing, which unhappily wounded 15 Americans, 12 Panamanians, and 1 American subsequently died, we do take that seriously, and we are pursuing it with some degree of alacrity with the Panamanian Government to try to track it down. It may turn out that it is a quasi-paramilitary organization doing that; although we are not by any means convinced about that at the moment.

However, let me also disabuse you of the idea that it has anything to do with the drug arrests that were made yesterday.

Senator BUMPERS [presiding]. Thank you, General.

Senator Rudman.

REMARKS OF SENATOR RUDMAN

Senator RUDMAN. General Thurman, unfortunately I have to leave here after talking to you. I had a number of questions for General Lindsay, but it may be that you might be able to throw some light on some of the questions I was going to ask him because of the nature of the operation that you have just concluded.

As you know, the Congress passed legislation authorizing creation of a Special Operations Command in 1986 with great opposition from within the Pentagon. Also authorized was an Assistant Secretary for that area, to take care of low-intensity conflict, a word I have never particularly liked, and the Special Operations Forces.

There was a sense in the Congress, because or the foot-dragging of the last administration and the rather slow approach of this one to getting that office well established, that the precise intent of the legislation was not being carefully observed.

I guess my question for you is, to the extent you can answer it, what is your view as to what that new organization is doing, particularly in terms of what they are supposed to be doing, major planning for low-intensity conflict, the deployment of Special Operations Forces? We finally have a man in place in that job. It was vacant all during the last 2 years of the last administration.

How is that going? Are you folks working with it? Is it something that you think is useful? Do you think the legislation was a bad piece of legislation?

I would just like your views on what we are doing over there.

General THURMAN. I think the legislation is a very good piece of legislation. If you recall on chart 31, I told you about the chain of command during Just Cause. You may recall that LTG Stiner used to command the JSOC forces. So LTG Stiner, Commander of Joint Task Force South, has command experience with both conventional and Special Operations Forces. Then if you look at the right-hand side of chart 31, you notice that the Joint Special Operations Task Force, was under the command of Maj. Gen. Wayne Downing, who previously worked with General Lindsay when the command was stood up and happened to have been the officer assigned here as the Washington liaison officers for JSOC.

CHART 35

JUST CAUSE PERSONNEL

	PERSONNEL	
ARMY	18,587	
NAVY	521	
AIR FORCE	3,133	
MARINE CORPS	690	
SPECIAL OPS FORCES	4,150	
(ARMY)		(2,850)
(NAVY)		(500)
(AIR FORCE)		(800)
TOTAL	27,081	

JUST CAUSE PERSONNEL

If you will turn to chart 35, I think you will get some impression about the Special Operating Forces' contribution to the operation. Of the total of 27,000 people, 4,100 of them were special operators—very well trained with very tight command and control. They were an indespensable component of this operation. We could not have done it without them.

The hallmark of the Just Cause operation from my standpoint as the CINC was the interrelationship between the Special Operating Forces on the one hand very professionally doing their series of very onerous tasks on a very tight time line, and the conventional forces on the other hand. This marriage of those several forces was highly successful.

So I cannot sing the praises of the special operators better, and I think it is a tribute to both the legislation on the one hand and Jim Lindsay's personal leadership on the other hand to get all that wired together and then rehearse all those operations a hundred times over so that they went well.

Senator **Rudman**. Would you agree with me, General Thurman, that the major changes occurring in the world we live in today would seem to indicate, I think to most military planners, that low-intensity conflict is much more apt to be the demand on the armed services than the kind of classic conflict that we have been planning for in Europe for the last 25 years. Therefore, we need to do more to bring cohesiveness between the conventional forces and the Special Operations Forces, and to some extent maybe to increase those Special Operations Forces for the kinds of things that might well happen in your command?

General THURMAN. I would agree with you. I keep telling my colleagues in the Army, for example: Reorient your East-West compass needles north and south, because we are going to do more of that than we are doing east and west.

I think that you will find—and we just came out of a meeting between the four-stars in the Army on this subject—that at the moment, even in programming the downturn of the forces at large, the Special Operating Forces are not being without cut.

Senator RUDMAN. They are actually being increased slightly.

General THURMAN. That is right. And so what I would say to you is, we count on them in my area of operations extensively, and that is the reason I said to you that in the counternarcotics business [deleted] and would expect more of that as we begin to ramp up.

I think it is important to know in the Andean drug game, we have only been at it for 5 months. So we are just beginning to turn on the financial assistance for those countries, except for the 506(a) money that was put in there last year in Colombia. But the other two countries are just beginning to rise. So we are going to have a heavy burden on the Special Forces about that.

AIRBORNE TROOPS

Senator RUDMAN. Let me ask you one final question and then I am unfortunately going to have to leave. I am very sorry to do that because I wanted to hear General Lindsay this morning.

There was no question that from every point of view Operation Just Cause was a first-rate operation. I do not think anyone can doubt that. The fact that it was does not mean that other doctrine could not have been used to accomplish the same purpose. That is what you all chose and I assume that your commanders decided in their planning that was the way they were going to do it.

The question I am going to ask you is not meant in any way as a criticism. It is truly a question. I have, as you might imagine, many conversations with people in the U.S. military because of the assignment on this committee, and I have gotten to know many very well. Among some who have no dispute with the success of the operation, there is some questioning as to the use of the airborne troops in that operation.

I am sure you have heard that yourself.

General THURMAN. Yes, sir.

Senator RUDMAN. It seems that the doctrine as to what airborne is used for maybe ought to be changed after this operation. The criticism being, of course, that the risk of that kind of an operation against a very well-entrenched enemy in a particular area that was, let us say, more sophisticated, better equipped than the PDF, that there was a high risk using airborne troops. Especially since many of the same operations, other than some of the small special ops, Ranger and SEAL-type operations, could have been accomplished with deployment from the base we have in the area, rather than vertical envelopment.

I would just like to hear your response to it.

General THURMAN. OK, sir, I would be happy to do that. When I took over the command down there, in order to take down the PDF and keep it from going into the mountains and fighting for the next 5 years from the mountains, the plan was to do exactly like you said, which was to launch it with a buildup that would take 5 days. By the time 5 days was over, in my judgment the PDF would have gone to the hills.

And as you are aware, we only captured 52,000 weapons, among which were 21,000 mint-condition AK-47's, in the outlying provinces. Therefore, when I took a look at the operation I said, This will not do. First of all, I have a mission. And it came home solidly to me after the October 3 coup. I have a mission to take down not only Noriega at the onset, but all of the PDF at the onset as well in order to make sure that they do not move out and go to the hills to fight a retrenchment action that will take us an enormous amount of time to overcome.

So I gave Carl Stiner instructions that I wanted to take down 27 targets simultaneously at H-hour. And the reason for that was to take down the entire infrastructure and get it over with. Otherwise, we would have been there a prolonged period of time, and I decided to avoid that.

The guidance I gave to Stiner was to do it quickly, do it swiftly, try to get it over with, because we were going to have to stand these people up the next day as the government and take the little people that were the privates and corporals of their army and turn them into the police force or whatever it was going to be for the long haul.

So the whole notion of this operation was to do it swiftly, as quickly as possible. Now, I would say to you, because you and I are both military people, I would say to you that in every case one must do the adequate intelligence preparation for the battlefield. And in this case, it worked. It does not necessarily say it would work for another case.

[Deleted.] But that is what we get paid for—doing the estimate of the situation And that is what this particular one was based on.

Senator RUDMAN. Were the jump-related injuries about what you anticipated? I am not talking about combat. I am talking about jump-related injuries.

General THURMAN. We programmed every unit in the jump game for 6 percent casualties on impact, and as I recall it, that is about what we had, 6 to 8.

Senator RUDMAN. Well, I thank you for your answer. Of course, as you well know and I know from a long time ago, airborne units are very gung-ho and they would jump into downtown Managua if you asked them to.

General THURMAN. I would not touch that with a 10-foot pole.

Senator RUDMAN. The point is that there is a great esprit de corps amongst airborne units and their commanders, and sometimes—age has brought mellowness—it seems to me their attitude, although very laudible, has to be tempered sometimes by tactical considerations as to the kind of a situation they are inserted into, because, as we know from the history of American airborne operations, in certain instances the casualties have been just horrific.

General THURMAN. I understand that and I agree with it.

Senator RUDMAN. That was my only reason for asking.

TACTICAL AIR SUPPORT

A final quick question. Who made the decision in terms of tactical air support to deploy F–1171's to that area?

General THURMAN. Carl Stiner.

Senator RUDMAN. He made that decision.

General THURMAN. Right. Let me tell you what he did, so we make sure you get it straight. He told the Air Force component commander, who is Lt. Gen. Kempf from the 12th Air Force, also my air component commander: I need to drop some bombs; I want to do it with the [deleted].

Now you say, why did you not use [deleted]. The F–117 with the 2,000-pound bomb is a very accurate weapon. [Deleted]. Therefore, that is the weapon we chose to use.

Senator RUDMAN. I thought the Navy had some carrier-based aircraft that could have accomplished the same purpose. Maybe I am incorrect.

General THURMAN. They may have, but my air component, the 12th Air Force commander, is also the LANTCOM Air Component Commander.

Senator RUDMAN. Well, we will discuss that with him. That is really not your decision. I was just curious who made the decision.

General THURMAN. Well, the answer is we made the decision—Stiner, Thurman, and Kempf made it.

Senator RUDMAN. But I mean, somebody in the Air Force obviously, General, picked which airplane they were going to deploy, and you were not going to second guess them on that.

General THURMAN. Yes, we did. They said they could bring in a different kind of bomber that would have a bigger CEP, and we said, No, we want the best bomber or best aircraft you have got, [deleted]. So the easiest way to do that is to bring the aircraft that has got a laser with it.

Senator RUDMAN. What was the evaluation of the mission of that flight of aircraft in terms of what its CEP finally was?

General THURMAN. I would have to ask Kempf that. I just do not know. He went out and stood in the holes in the ground.

Senator RUDMAN. Well, I will tell you what. Answer that for the record.

General THURMAN. OK, sir.

Senator RUDMAN. I am curious about that.

General THURMAN. Happy to do that.

Senator RUDMAN. I just wondered about that.

[The information follows:]

General Thurman: As you know, there has been quite a controversy about the results of the F–117A mission. To answer your specific question on the circular error of probability (CEP) of the two bombs dropped by the F–117As, the answer is that the bombs hit precisely where they were aimed. This is based on detailed analysis of mission tapes. However, I must tell you that the aim point used by the pilots was slightly different than planned due to adverse atmospheric conditions which effected the infrared target acquisition system and because of the difficulty of selecting a precise aim point within the wooded area surrounding the barracks being used as the desired impact point. Due to forecasted winds in the target area which would cause drifting explosion smoke to be a problem, the pilots reversed their targets shortly before takeoff. The pilot of the first aircraft now planned to hit the field near the barracks building on the right. The pilot of the second aircraft would then use the impact point of the first bomb to target the field near the left barracks. Because of the short target acquisition time and an unexpected low cloud cover, the first pilot had difficulty visually acquiring his target and dropped his bomb 55 meters from the barracks on the left—not the target on the right as briefed at takeoff. Therefore the second aircraft's bomb, which was targeted off the impact point of the first bomb, struck in the field to the left of the left barracks. This impact point was 90 meters to the left of where the bomb would have landed if the mission had gone as planned. The bottom line is that the F-117As dropped their bombs in the area near the barracks as directed and accomplished exactly what was intended, which was to stun the PDF soldiers in the barracks and minimize actual destruction and loss of lives.

Senator RUDMAN. Thank you very much and congratulations again.

General THURMAN. Thank you very much, not for me but for the soldiers, sailors, airmen, and marines who did a terrific job.

Senator RUDMAN. A first-rate job.

I apologize to General Lindsay that I have to go to the hearing, but I will talk to him at some other time.

General THURMAN. All right, sir.

Senator BUMPERS. So General, [deleted].

General THURMAN. [Deleted.]

GHETTO BLASTERS IN PAPAL NUNCIATURA

Senator BUMPERS. Let me start off with a question, General, that was a rather minor thing. After the war is over and we are surrounding the Papal Nunciatura, what the heck are we doing with those ghetto busters out there playing loud music 24 hours a day?

General THURMAN. Well, as I told the press when asked, "Who is in charge of music?" I was the guy in charge of music. So I will be glad to tell you about it.

There is a photograph showing me tipping my hat to the Papal Nuncio that appeared in the newspapers of America on December 26. On Christmas day, I went down to the Nunciatura to shake hands with all of the troops that were stationed down there in order to keep Noriega from getting out.

After walking around the compound for more than an hour and a half and talking to the Nuncio for almost an hour in the street, as I turned to walk off to go back to get in my car to go back to my headquarters, I heard a voice shout at me, "Hello, General." I turned around and looked up, and there standing above the Nunciatura was the Holiday Inn, where a reporter was standing and his voice carried to me as he hollered to me. And he said: "Hello, General, how are you doing?" So I turned around and waved at him, because I try to mend my fences with the press. [Laughter.]

Senator BUMPERS. It does not work, I will tell you that.

General THURMAN. I went back to my hootch there and said: Gee whiz, that guy was able to shout at me and hear what I was doing. All he has to do is take a football microphone that is available to every guy in the press corps and put it up there, and he can listen. If he can listen to what the quarterback is saying with 100,000 people in the stadium at Soldiers Field in Chicago, he can listen to what I am saying down there talking to the Nuncio 150 meters down range.

So I said: Get me a sound barrier put up there. And that was the genesis of putting up the sound barrier. Now, I personally did not select the music, and I got some good advice later about what should have been played there, like "Folsom Prison Blues" that I did not play. But I did issue the order to put it up there, until I took a ferocious beating about the music.

Then I moved to another entrance to the Nunciatura because I did not want to get overheard. We could not go into the grounds and the Nuncio had to come out of the grounds to talk to us. So I moved to an entrance then that was blocked from the press.

Incidentally, by the time Noriega came out of there they not only had the crowd mikes that I just described, but they also had night vision devices in there to do low-level-light TV work in order to see who was coming and going night and day in the Nunciatura. So they went out and bought all the kind of gear you and I have provided for the U.S. Armed Forces, in order to attach it to their television cameras and see what was going to happen down there.

So I am the guy in charge of the music. [Deleted.]

Senator BUMPERS. I thought—you know, maybe your explanation is a justification, and I am not going to argue with that. We do plenty of Monday morning quarterbacking around here, and the operation went off well and you are to be congratulated on that.

But I must say as a proud American who values our values as much as I do our military prowess, I thought we kind of took a beating in the international press on that. And I just thought, after I found out that we were not trying to drive Noriega crazy with the music and that what we were actually trying to do, as you said a while ago, was put up a sound barrier, I just wondered if there might not have been a little more appropriate way to do it.

General THURMAN. There was, and as a matter of fact that is one of the lessons I have learned, because I have gone out and [deleted].

NEW PANAMANIAN FORCES

Senator BUMPERS. General, what is the status of the PDF now?

General THURMAN. The PDF is gone. The Panamanian National Police has taken its place.

Senator BUMPERS. How many of those people were PDF?

General THURMAN. All of them.

Senator BUMPERS. All of them?

General THURMAN. Yes, sir.

Senator BUMPERS. Have they gone through some sort of a reorientation program or what?

General THURMAN. First of all, we brought in the ICITAP, which is the arm of the Justice Department that does this kind of work. The ICITAP is on site today. The officer in charge is the director of ICITAP. He is physically located down there.

CHART 41

NEW PANAMANIAN FORCES

NEED ORGANIZATION WITH:

- CIVILIAN CONTROL
- CHECKS AND BALANCES
- DECENTRALIZATION OF FUNCTIONS AMONG GOVERNMENT AGENCIES
- APPROPRIATE SIZE
- EMPHASIS ON POLICE, VICE COMBAT, ROLE/TRAINING
- FORMATION OF TACTICAL ELEMENTS OVERTIME IN RESPONSE TO EMERGENT THREATS

Now, if you turn to chart 41, I sort of tried to summarize all that for you to make sure I put it in the record as what we did.

First of all, I think it is important for you to understand the genesis of this thing. If you will bear with me 1 minute, I will tell you about it. Along with the Chargé, I met with Endara, Arias Calderon, who is the First Vice President, and Billy Ford, starting the night of December 22 on the matter of how to restructure, what to do with the Panamanian Defense Force, and how to turn it into a police force. We asked them [deleted] that are going to be stood up.

Meanwhile, on the 24th Noriega turned himself in to the Nunciatura and we did not know how long he was going to be there. It turns out he was there until January 3, when he walked out.

But I will tell you that there was an enormous pall over Endara and Arias Calderon. I am talking at the classified level now; up in the secret category. There was a pall because of [deleted]. That is one reason we put a very tight noose around the Nunciatura, because [deleted]. So I would not let anybody go in and out of that embassy.

This decision caused me some grief later on, but that was my view about it at the time I did it, [deleted].

Meanwhile, we were scarfing up the PDF and we were putting them in a detention center that we constructed, and then going through a screening process to distinguish between those that were out and out hoodlums and murderers or torturers or thieves or whatever. Most of the rank and file of the PDF was like the rank and file of any army. They will do what they are told to do.

But we had to go through and [deleted]. And incidentally [deleted] of the first leader that we got for the national police. He was fired the next day by Arias.

Now, going through that screening process, we were trying to establish civilian control and Arias is the Vice President in charge of that. [Deleted] and we [deleted].

We have started the training program. About 80 percent of the new police have been through a 20-hour training program. ICITAP is going to establish a police academy.

But I want to tell you, this is not a simple proposition. We found on the bunk of every one of the PDF troopers a 2-foot rubber truncheon. Their view of the world was to go out and beat up people because that is what they had been trained to do for the past 21 years under military jurisdiction. So we must get that out of their heads, and they have to be psychologically attuned to changing their views and put out a helping hand instead of a rubber truncheon.

I have been discussing the city side of the proposition—Panama City has 1.2 million people in it. In the provinces we had another one of those absolutely stirring achievements by American servicemen. The Special Forces soldiers who spoke the language called up members of the PDF in the western provinces, and we only fired three rifle shots west of Penonome, which is about 70 miles west of Panama. Yet some 4,000 people surrendered out there. That was due to the fact that we said, "Look, we want you to surrender, turn your arms in." And then Arias himself, even while the conflict was going on, flew out there, landed, and had them sworn in to be part of the new government, take a step forward for democracy and the like.

Now, [deleted].

SIZE OF THE NEW FORCE

Senator **Bumpers**. What is the present size of that force?

General **Thurman**. 12,000.

Senator **Bumpers**. Do they need that many people under arms?

General **Thurman**. No, they do not.

Senator **Bumpers**. What would you suggest as an appropriate number?

General **Thurman**. About 8,000, no more than 8,000.

Now let me tell you the problem with all of that.

And again I go back to the history of this because it is very important. You understand Arias et al. did not know what to do with these people, [deleted]. So he said: We will bring them into the bosom the new government, [deleted].

So he said to us: I will break up the police [deleted] and he has done that. But he said: I cannot throw all these people into the ranks of the unemployed.

One of our problems down there, very frankly, is the fact that 2½ years of U.S. sanctions have turned what was then 8,000 unemployed into 160,000 unemployed now. And what he did not want to do is turn another 5,000 or 10,000 people back on the street who were familiar with how to use arms well who could become a threat to the new regime.

Senator **Bumpers**. I agree with that. I do not think we can afford to win any more elections or take any more countries. We are broke, too. We just cannot afford them all.

SPECIAL FORCES DETACHMENTS

General **Thurman**. Turn to chart 39, if you would, for just a moment. I have a Special Forces team located everywhere you see one of those asterisks.

Senator **Bumpers**. Everywhere there is an asterisk?

General **Thurman**. Everywhere there is an asterisk, all the way to David on the Costa Rican border, and up north of that right on the coast in Bocas Del Toro; also in Santiago and Chitre. All those places and two others indicated by an asterick have a Special Forces detachment, the purpose of which is to make sure there is an American presence so the people will come in and tell us if there are any arms caches that we have not found yet.

Only the night before last a person came in and said: I know where there are 12 AK-47's in that restaurant right over there. So we went over there and got 12 AK-47's out of the restaurant.

But all of that is toward the business of trying to maintain a presence that will lend stability as the new Panamanian National Police stand up. But I will tell you, it will not stand up in a week. We have the Justice Department in there working to make that happen as quickly as possible.

Senator **Bumpers**. I think that is the most important mission we have down there right now.

General **Thurman**. Absolutely. And as I indicated, those three events outlined on chart 43 gave you some indication that the road ahead is to be watched and could be worrisome.

PERFORMANCE OF EQUIPMENT

Senator **Bumpers**. General, just three quick questions. My time is up, and if you could give me as concise an answer as possible.

General **Thurman**. Short answers.

Senator **Bumpers**. Generally on the equipment and the men, I take it that you were, I would say, as the commanding general you were well satisfied with the performance of the men. And I want to ask you generally the equipment. [Deleted.]

How about the other equipment? Did you find any failures in any of the equipment or any malfunctions, or did you find a lack of training on some of the equipment that caused you any undue grief?

General **Thurman**. Absolutely not. I have been quoted in Defense News as saying everything worked perfectly, and I would say most of it did work great. Did we have some malfunctions? Of course we had some malfunctions.

Senator **Bumpers**. But generally the equipment performed?

General **Thurman**. The equipment worked fine. People were tremendous. Let me tell you one thing that I just must intrude, although you do not like long answers. I gave them the following instructions: Look, I want to do this with minimum casualties and minimum collateral damage consistent with safeguarding American lives. And I want to tell you the young people down at the bottom of the pile understood what those authorities were and those commands were, and they did that. And that is a testimony to the quality of the youngmen and women that we have working for us.

PDF AND CIVILIAN CASUALTIES

Senator **Bumpers**. What was the final civilian count?

General **Thurman**. Casualties?

Senator **Bumpers**. Yes.

General **Thurman**. I reported a number of about 524 by going out and inventorying every morgue in the country. That included both the PDF killed and the civilians.

Senator **Bumpers**. That is PDF and civilians?

General **Thurman**. That is PDF and civilian.

Senator **Bumpers**. I was really alluding to civilians.

General **Thurman**. I think 202 is my number.

Now, the number that is now held by the Panamanian Government is about half of that. In other words, they now believe the number is more on the order of less than 100. And they get that by people coming in and saying, "I am looking for my kinfolk."

MARINE LIGHT ASSAULT VEHICLE

Senator **Bumpers**. How well did—getting back to the equipment question, how did the Marine light assault vehicle perform?

General **Thurman**. Terrific. Whatever was said by somebody, that it did not work well, is full of prunes. It is a great piece of equipment, and we used it against the Commandancia and in the city. It worked great.

Senator **Bumpers**. Did it work OK in areas where there was a lot of rubble?

General **Thurman**. As a matter of fact, yes. It does not have the capability of a tank to go over rubble. But the equipment worked great in the city, and in the countryside.

Senator **Bumpers**. There have been some comments to the contrary, as you know.

General **Thurman**. I know there have been, and I am telling you as the commander it worked fine.

Does every piece of equipment work in every situation? The answer is, of course not. But if you ask me is the LAV-25 a good piece of equipment, the answer is that it is a very, very valuable piece of equipment. As a matter of fact, as the Vice Chief of Staff of the Army I tried to get it sold to the Army, and we had a lieutenant general that undermined it to some staffer in the Congress and they took all the money out of the program and gave it to the Marines. So I am a devotee of the LAV-25 for that particular area down there.

Senator **Bumpers**. As a former Marine, that is fine with me.

General **Thurman**. Sir?

Senator **Bumpers**. I say, as a former Marine that is OK with me.

General **Thurman**. Yes, it is a great piece.

AK-4F

Senator **Bumpers**. General, finally, have you ever said anything to the Chairman or the Secretary or the President about the exportation of AK-47's to Colombia? There is a news account this morning. You mentioned a while ago about how many AK-47's you captured down there, you took. And Barcas has asked the President of the United States to stop the exportation of AK-47's.

General **THURMAN**. I think you can buy an AK-47 off of the commercial market in the United States of America. It was not made by the Soviets, but is made by other people.

Senator **BUMPERS**. Well, we are not allowing the Soviets or any of the Eastern Bloc nations, presumably, to export those weapons to this country. But we are still making them here and they are still available on the civilian market.

General **THURMAN**. Yes; and I have never said anything about that to any of my superiors, but I would endorse keeping them on the civilian market.

Senator **BUMPERS**. Well, my point is, if you look at the news account in the Post this morning you will see that the Medellin cartel is again gearing up for battle, and they were talking about the number of AK-47's that are being imported into that country for this battle.

And here we are giving Barcas all this help and all this military assistance which you have alluded to in your testimony, and we are continuing to arm, with one of the most sophisticated weapons we know anything about, we are still arming the drug dealers.

General **THURMAN**. But you say we are.

Senator **BUMPERS**. I am saying we are, the United States.

General **THURMAN**. Ir is not the United States military doing it.

Senator **BUMPERS**. I am not suggesting that. But I am talking about your men possibly facing those weapons.

General **THURMAN**. Oh, I understand that. Listen, I could not support you more about saying we need to cut off the arms flow.

Senator **BUMPERS**. I am not saying also that they may not be able to find them someplace else. They may very well. But I am saying we ought not to be a party to it.

General **THURMAN**. I could not agree with you more.

Senator **BUMPERS**. Thank you, General.

Thank you, Mr. Chairman.

Senator **INOUYE**. Thank you very much.

Senator Cochran.

Senator **COCHRAN**. Thank you, Mr. Chairman.

RENEGADE FORCES IN PANAMA CANAL

General, I am curious about whether you assess the threat to those using the Panama Canal to be better than it was before we had the Operation Just Cause success? Are there any renegades of the Noriega force that are now poised to do mischief there in the Canal Zone?

General **THURMAN**. There are a variety of reports that we have from our intelligence agencies which say that we have to be wary of renegades. I do not believe we got all of the arms, even though we captured 52,000 of them. I am not sure that we got them all. I cannot tell you how many there were to start with in aggregate.

So my general view is that the potential for that exists and we have to be wary about that. We are still conducting operations.

Incidentally, under the treaty I have the authority to conduct operations anywhere in the country, and therefore I am doing that to make sure we keep anybody off balance about that. And I have a very good intelligence program, trying to make sure that Noriega loyalists do not reassert themselves.

I think transits through the canal now are back to normal, and they have been for a long time. I do not see any direct challenge to the canal.

Senator COCHRAN. Do you have the assets and resources that you need in this budget for the next year to provide the security that is necessary for the Canal Zone?

General THURMAN. Yes, sir.

Senator COCHRAN. When you were undertaking this mission Just Cause, did you find any special threats posed to the success of the mission from Nicaragua or the insurgencies in El Salvador? Was there any concern that this might break out into a wider confrontation that would involve those supply links?

General THURMAN. [Deleted.] Therefore, that is one reason that, as I indicated to Senator Rudman before, we took down all 27 targets fast in order to get the operation over with fast so nobody would have an opportunity to come in and [deleted] to make sure nothing came from Cuba or any one of the other countries.

Very frankly [deleted]. In other words, they had all the problems they could handle. Nor could I see [deleted].

Senator COCHRAN. What about the situation now? Do you see any evidence of resupply of the renegade forces in Panama or the Nicaraguans or the FMLN in El Salvador by Cuba or by any other outside force?

General THURMAN. Back into Panama? [Deleted.] I still think there are some residual weapons that we have not found yet.

Senator COCHRAN. What about into Nicaragua and El Salvador right now? Do you see any evidence of supplies being sent into there?

General THURMAN. I would tell you that the most worrisome thing we have at the moment, I think, [deleted].

Then I went over to El Salvador and talked to the country team there, as well as to the military authorities in El Salvador, [deleted].

I got assurances about that from both the country team [deleted]. However, I have my own intelligence people doing a tremendous amount of work on that.

Let me give you one last thought about Nicaragua. There are some events going on in Nicaragua that are very troublesome. The first thing is there are desertions in the Sandinista army. You can applaud that, but the Sandinista armed forces leadership, Ortega and company, [deleted].

Second, [deleted].

Third, [deleted].

Therefore, it behooves us to be a very watchful situation in my view. As a matter of fact, intelligence reports say that [deleted].

Meanwhile, you have the United Nations forces and the Organization of American States forces, the CIAV and the ONUCA forces, beginning to get up and operating.

So I would say that there is a need for watchfulness by all of us on that.

Senator COCHRAN. Thank you very much.

Thanks, Mr. Chairman.

Senator Inouye. Thank you.

Senator Stevens.

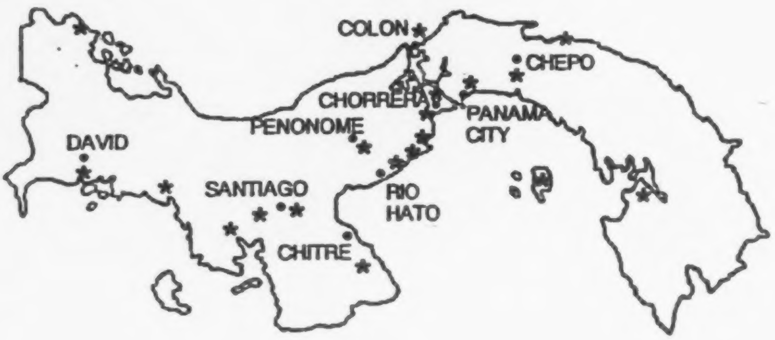
7TH INFANTRY DIVISION

Senator Stevens. General, what about the light division down there? How did it perform?

General Thurman. The 7th Infantry Division did a terrific job down there. As you know, they came from Fort Ord. They were air-landed in there on D-Day after the airborne guys had secured it, so we could move the airborne on out to other targets.

CHART 39

PANAMA



* INDICATES SPECIAL FORCES LOCATION

And then, if you look at this chart on 39, the area from Penonome west to David and the area from Panama City east to the Colombian border was secured by Special Forces and the 7th Infantry Division. They did a terrific job.

Senator Stevens. Would you have any comments—you had a lot to do with the concept of the light divisions.

General Thurman. As a matter of fact, I did, sir.

Senator Stevens. Do you have any comments now in retrospect, after seeing one of them perform? What does this Just Cause show us with regard to the light division concept, if anything?

General Thurman. In my view, it shows the strategic deployability of light forces. Whether they are deployed in Fort Ord in California or Hawaii or whether they are employed in Alaska, they are mobile all across the spectrum of warfare that we can use them in.

As you know, we sent the 10th Infantry Division on the latest REFORGER to Europe. So the concept in my view has proven sound: rapid mobility, introduction of presence. In the case of Penonome west to the Costa Rica border, presence stopped the fighting, and we did not lose a single American out there, nor did we lose a single Panamanian out there.

Senator Stevens. If we are going into a new period, which it looks like we are going into, I hope that we can learn some lessons from this whole exercise with regard to the structure of the Army and its units, so that they would have greater utility for actions such as this.

AMERICAN DEPENDENTS IN PANAMA

Let me ask you about dependents. Before this whole thing came down, I was very worried about dependents. I think we visited. I visited with other people about it. You put all the dependents onto the basic installations, I think——

General **Thurman**. Yes, sir.

Senator **Stevens** [continuing]. Just as this thing happened. What is your current guidelines now for the dependents of military personnel or American dependents down there, civilians too?

General **Thurman**. OK. To quickly review, the President told us in May of last year to take them off the local economy. That was done.

When I got down there and went through the October 3 coup, I did not know when Noriega was going to stay, go, or what was going to happen. So I went to the Secretary of Defense, asked him to give me the authority to draw down the dependents to no more than 500 families, which I would have lodged at Howard Air Force Base.

Then along came Just Cause, as we were beginning to draw down. We started the drawdown November 16. Currently I have 1,700 military families in Panama, but I can handle about 4,000 dependent families in terms of quarters on military installations.

I I told the Secretary of Defense after the operation was over that I recommended permitting dependents to come back in effective March 1 as long as they lived on post, and that is the current rule.

Senator **Stevens**. Is there any limit?

General **Thurman**. Yes; the number of families is limited to the quarters I have, which is no more than 4,000.

Senator **Stevens**. Limited to 4,000.

General **Thurman**. No more than 4,000 families.

Senator **Stevens**. Are we still going to have the incident that the children are going to have to go off base to school?

General **Thurman**. They will have to go off base to school, on roads I designated as blue routes immediately after the October 3 coup, and those routes are still in effect. And I am not busing downtown, only where I control both sides of the road and I have MP's 24 hours a day.

Senator **Stevens**. What about off-duty access to downtown areas for dependents?

General **Thurman**. They have access to it. I went to PML Bravo, which gives them authority to go downtown; and unhappily, 3 days after I did that the bombing took place in the My Place. But there is still the authority to go downtown, and essentially U.S. military and dependents are doing that in daylight hours.

Senator **Stevens**. Well, that was going to be my next question. Does it not make some sense to tell them not to go, the dependents—I am talking about women and children.

General **Thurman**. They are not permitted to go to the discos and that sort of thing.

Senator **Stevens**. They are not. I know, but we had some unfortunate incidents, did we not, down there of women going to see some of their people that worked for them and trying to be good samaritans and getting in trouble?

General **Thurman**. We had some terrible problems with that, and the consciousness of our people is up on that. The recent bombing shows them it is not all over, and they have to be wary.

Senator **Stevens**. What is the risk there to dependents in town? Is it sufficient that——

General **Thurman**. [Deleted.] Anybody can commit a terrorist act in any country in the world.

But I think the risk is manageable. I am sorry the event happened the other day, and I have taken stock of that with my own security people as well as the Panamanians. I think we can reduce the risk somewhat.

Senator **Stevens**. Do we have a joint force in the cities now?

General **Thurman**. Yes, sir; we do.

Senator **Stevens**. And is that accepted by the Panamanian Government, that we have some authority in these towns at night?

General **Thurman**. It is absolutely accepted. As a matter of fact I retained four additional MP companies when I was given instructions to bring down the force below the pre-Just Cause number. I traded out some forces in order to retain Military Police.

So I currently have [deleted] and we work hand in hand with the Panamanian Government. And I had a meeting last week after this incident occurred to make sure we had done a risk analysis on every single place where Americans are likely to gather, to make sure that the incident does not get repeated.

Senator **Stevens**. Thank you very much.

Jim Lindsay, I see you are here, General, and I am sorry, I have got to go to another meeting. I have read your statement and I appreciate the chance to be with you, but I am sorry.

Thank you.

Senator **Inouye**. Thank you.

Senator D'Amato.

Senator **D'Amato**. Mr. Chairman, I am just going to ask that my statement be included in the record as if read in its entirety.

Senator **Inouye**. Without objection.

[The statement follows:]

Statement of Senator D'Amato

Thank you, Mr. Chairman. I want to welcome Generals Thurman and Lindsay. I appreciate your appearing this morning to testify.

I want to congratulate both of you on your part in the planning and execution of Just Cause. The minimal casualties suffered by our forces is a testimonial to the leadership of today's officer corps. I would hope that, in your remarks, you address some of the issues raised in the wake of the Panama operation: AH-64 "Apache" attack helicopter reliability, AH-6F "Little Bird" special operations helicopter losses, the SEAL operation at Paitilla Airfield, and the performance of the light armored vehicle [LAV] and the Sheridan tank. Also, if you care to speculate, the advantages or disadvantages of the assault gun variant of LAV [LAV-AG] as the near-term solution for the airborne and light divisions' requirement for a light tank.

I would also be interested to hear your thoughts on the assertion that the U.S., in identifying low intensity conflict as the wave of the future, has embraced the lowest of the low, commando-style raids, while largely ignoring conflicts of somewhat higher intensity and longer duration, i.e. counterinsurgency. Considering the prevalence of guerilla wars today, such a narrow focus, if true, would be a serious oversight.

Thank you, Mr. Chairman

Senator D'AMATO. I welcome the General.

General THURMAN. It is nice to see you again, sir.

Senator D'AMATO. It is good to see you.

RECONSTITUTION PROCESS

I have been down there. They have been doing an excellent job. If I might, I know that you have touched on the reconstitution process which is taking place concerning PDF forces now into the PPF. If you have not shared with the committee or if you might just give me 30 seconds on, how do you believe that is going? Just how is it going? How is the reconstitution going?

General THURMAN. Slow and steady progress. You know, as I indicated to others, that ICITAP is in there. The Director of ICITAP is stationed down there working with the Ambassador.

We have a group of military people backing up the ICITAP. I cannot do it directly. I have to do it under the auspices of the ICITAP in order to comply with the legal restrictions on working with the police.

But we are working closely with them, and our own MP's are still hand in glove with them. We have Reservists who are down there that are police authorities from America and speak the language. We have 30 of them in country now, and we want to continue that process in order to give the Panamanians direct guidance about how to develop into quality police. The training has not been completed yet, but it is ongoing.

Senator D'AMATO. Are they beginning to get some of that equipment that they needed?

General THURMAN. [Deleted] thanks to you all signing the bill, or passing the bill and providing the resources to do that. The President signed the bill on February 14. [Deleted] that are up and operating. The uniforms are there now. We are still negotiating about getting enough police vehicles to make it dance right, but it is coming along.

What we need now is the passage of the other piece of the aid package that is now sitting before you for the next $500 million and we will be in good shape.

Senator D'AMATO. I am sure the chairman will loan himself to that effort, as we all will.

General THURMAN. I am sure he will take care of it this afternoon. I really appreciate that, sir. [Laughter.]

Senator D'AMATO. Thank you, General.

Thank you, Mr. Chairman.

Senator INOUYE. Thank you.

TACTICAL COMPROMISE

The operation was compromised about 3 hours before it was launched. It has been said that when we launched the operation we knew that they were waiting for us. As a result, we added a few casualties that were not intended.

Do you have any idea as to who was responsible for compromising this?

General THURMAN. No; I guess I take a little bit of umbrage with the word "compromise." We had various and sundry reports, news reports, for example, that aircraft were leaving Fort Bragg, NC. These came out on CNN, and CNN is a cable distributor into Latin America and into Panama specifically.

My general view is that tactical surprise was maintained. The reason I say that is because we have some very hard evidence that, [deleted].

Now, if it had been a complete tactical compromise, then they would not have said that kind of thing. If it had been a complete compromise, Noriega would not have been out with his prostitute at Tocumen Airfield. He would have been in his command post doing something.

So I have a little bit different view about that. Now, were there people out on the runways? Yes. There was a banner that ran across the television at about 11:45 that told the dignity battalions to go and draw weaponry.

Was it a complete compromise? In my view it was not a complete compromise. If so, they would have done things quite differently than the way they did. Were they alerted? Some were, some were not.

Senator INOUYE. I note that you took some umbrage to that, but I was just quoting General Stiner.

General THURMAN. He is a good man, sir. But he and I differ on certain things.

Senator INOUYE. A lot of weapons were seized during this operation. What do you intend to do with them?

General THURMAN. [Deleted] were retained in country in the form of T-65 rifles—a foreign-made look-alike of the M-16—.38 caliber pistols, and shotguns to rearm the police function. And then about [deleted] were shipped to Letterkenny Army Depot, and they are currently there.

Senator INOUYE. Do you intend to do anything with it besides storing them?

General THURMAN. Well I do not think they will be destroyed. [Deleted] is a decision that the Department of the Army and the Defense Department will have to make.

But we evacuated those weapons.

Senator INOUYE. General Thurman, on behalf of the committee I thank you very much. As I indicated, your testimony was refreshing and extremely helpful. We look forward to the report that you will be submitting on the operation itself.

Once again, please extend to your men and women our deep gratitude, sir.

General THURMAN. Thank you very much, Mr. Chairman. I appreciate that, and I know that I express my appreciation to General Lindsay, who contributed 4,100 troops to the fray. I know you will enjoy hearing from him about that.

Thank you very much, Mr. Chairman.

Senator INOUYE. Thank you.

ADDITIONAL COMMITTEE QUESTIONS

We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR INOUYE

Adequacy of Advance Intelligence and Reconnaissance

Question: General Thurman, how would you evaluate the adequacy of advance intelligence for the operation? To what extent have bureaucratic turf battles and cumbersome procedures among our executive branch agencies degraded our ability to gather the best advance intelligence? In answering this question, please bear in mind that this was an operation with a comfortably long planning phase and thus we had the luxury of advance intelligence opportunities that might not be as fulsome in operations where the led time is much shorter.

Answer: I have stated privately, publicly and once in my testimony to this committee that the intelligence picture prior to the initiation of Operation JUST CAUSE was very good. It certainly was adequate, and I was satisfied with it both before and during the operation.

I am not privy to any of the interagency activity that involves those executive branch agencies which you say are engaged in "bureaucratic turf battles". I know, however, that all of those agencies which work for me or with me at USSOUTHCOM are working as a team. Gathering reliable intelligence is almost always a coordinated effort among agencies which may make it slow but not necessarily cumbersome.

Cooperation Among Services

Question: General Thurman, the debacle in the Iranian desert called Desert I, the aborted hostage rescue mission was attributed at least partly to lack of unified cross-service cooperation in both planning and execution. The creation of a unified command for Special Operations in (1980) was derived largely from the experience. Have we demonstrated in JUST CAUSE that we have overcome the problem and the concept of service unity?

Answer: The subunified command which was created in 1980 for special operations worked superbly. It's H-hour plan was one of the most intricate ever attempted by U.S. military forces.

Also, I am on the record as having stated that Operation JUST CAUSE was extremely successful at validating the authority and procedures provided to CINC's as combatant commanders by the Goldwater-Nichols Defense Department Reorganization Act of 1986. There is no doubt that Operation JUST CAUSE demonstrated the current cohesiveness of service unity and joint interoperability.

SITUATION IN EL SALVADOR

Question: Where do you assess El Salvador going, assuming that the Nicaraguan connection dries up?

Answer: The time is ripe for the Government of El Salvador to force the FMLN back to the negotiating table. Owing to the demise of the Sandinista Government and the dramatic changes in the world, the GOES should take advantage of this perhaps unique opportunity to end the military conflict.

Question: Is the government capable of defeating the guerrillas from a military point of view?

Answer: With continued U.S. military assistance, the Government of El Salvador can continue to deny the FMLN the opportunity to forcefully take over the government. El Salvador's Armed Forces' capability to deter the FMLN was demonstrated by their performance in countering the FMLN November 89 offensive. However, there is no immediate military solution to the conflict in El Salvador. The road to peace in El Salvador is through the negotiating table.

Question: There is a legal limit on U.S. Advisers in Salvador at 55, but I understand Special Forces and other so-called temporary duty military personnel, in medical maintenance and other areas push above that number. What is the actual size of our U.S. presence in Salvador on a regular basis, and what is the composition of our teams there?

Answer: The 55-man limit was imposed as a result of a 1981 congressional hearing and a 1983 informal agreement. The MILGP provides a monthly listing of all U.S. Military personnel in El Salvador (with the exception of the Embassy Marine Security Guard and the United States Defense Attache Office). This report has been provided to congress for the last five years.

SOUTHCOM'S FOREIGN INTERNAL DEFENSE (FID) MISSION

Question: General Thurman, I understand that U.S. Southern Command has identified a deficiency in its ability to carry-out its Foreign Internal Defense (FID) mission. Please describe this mission?

Answer: If I have a deficiency it is in the number of troops that I have immediately available to dedicate to the FID mission. I currently have under my combatant command one battalion of Special Forces and a Naval Special Warfare Unit. These two units conduct the majority of my FID missions.

Also, the Foreign Internal Defense (FID) missions within the countries in my area of responsibility are almost all the same. In general, the mission itself concerns counterinsurgency and counternarcotics training in host nations and this varies based upon the specific threat, the strategy to address that threat and the resources in place in country to implement the strategy.

[Deleted]

Our ability to execute any mission is directly related to the positive support and endorsement from the host nation.

Question: How is your Command responding to this deficiency?

Answer: My Command is responding by continuing its dialogue and coordination with each country's U.S. country team.

Several governments in the region are in transition now, especially Honduras, Chile and, shortly, Nicaragua and our intentions and interests will have to be validated with those governments.

Finally, I just recently increased the number of SEAL platoons by one platoon; we now have two SEAL platoons on station.

Question: What policy input has the Department of State had into the FID assessment process?

Answer: The Department of State input by various staffers at each host nation's embassy is presented to me by the Ambassador.

As I stated earlier in this testimony, nothing I do in any host nation is done without the approval of the ambassador in that country.

Question: What is the Air Force position on the FID?

Answer: The Air Force policy on foreign internal defense within my Command is the same as my policy. I direct that to the Air Force component subordinate to me.

Outside of my Command, I am not aware of any conflict in policy, especially since the policy in this arena is described by law.

Question: Please provide this Committee with a copy of the Joint Mission Analysis (JMA) prepared by Southern Command with input from the Special Operations Command.

Answer: At this time the Joint Mission Analysis is still being prepared. I have instructed my staff to provide you a copy as soon as it is completed, approved and published.

COUNTERNARCOTICS STRATEGY IN HEMISPHERE

Question: General Thurman, what is your assessment of the effectiveness of our country teams actions in the Andean nations? We have MTT's (Mobile Training Teams) in Peru, Bolivia, and Colombia and there is a demand for more MTT's. Secretary Eagleberger, I understand has tasked the Country Teams to coordinate with your command closely. How is that progressing? How is your relationship with DEA in this area?

Answer: [Deleted]

As for coordinating between the country teams and USSOUTHCOM, there are two avenues, direct and indirect. I have direct contact with the U.S. Ambassadors and also work indirectly through my staff with key personnel on the country teams, including my military assistance and advisory group commanders. I am aware of the Ambassadors' priorities while the country teams articulate their specific needs to my staff. Additionally, the military group commanders inform me of host nation military requirements. The mobile training teams (MTTs) that are deployed and those we will deploy in the future are selected specifically to help host nations field more potent and effective counternarcotics forces. The MTTs are already producing positive results, as can be seen at the training sites at Mazamari, Peru where we are training the Peruvian National Police and at Chimore, Bolivia where we are training the UMOPAR.

Finally, I have instructed all commanders to make counternarcotics their number one priority. USSOUTHCOM manpower and resources have been made available to meet the demands of the country teams in fighting the drug war. As DEA is part of the team, we have a good working relation and will continue to support and coordinate all counternarcotics efforts.

DOCUMENTS CAPTURED, PRELIMINARY ANALYSIS

Question: General Thurman, General Stiner announced in his press conference that we captured quite a load of documents, some 5,000 linear feet of documents. Do we have any preliminary analysis of the value of that, particularly that could be useful in the War on Drugs, or on the ways and wherefore for money laundering?

Answer: Several agencies in the U.S. Government and all of the military's intelligence branches have or will have access to those documents as they relate to issues within the purview of their organization.

Already several documents of various classifications have been made available and the information contained in those documents has been forwarded to the organizations and agencies working counternarcotics.

The exact magnitude ~~and specifics~~ of the money laundering network are still being investigated. [Deleted]

Question: Are we working with the Endara government to get at the financial institutions in Panama so as to attack the money laundering network associated with drug trafficking?

Answer: Absolutely, but that is beyond the scope of my responsibility. What we do is provide support to other U.S. government agencies that are specifically trained and charged with that responsibility and are working with the Embassy.

ROLE & COMPLEXITY OF THE F-117 STEALTH FIGHTER: PANAMA OPERATION

Question: General Thurman, can you briefly describe the kind of logistical requirement necessary to get the Stealth Fighters into action from their base in the U.S., how the aircraft performed, and whether there were any disappointments in its performance?

Answer: Logistical requirements for using the F-117 during Operation Just Cause were no different from the requirements to employ any other type of fighter aircraft from the United States [Deleted] It was selected as the fighter of choice based upon its superior ability to accomplish a precision mission at night. The F-117 accomplished its mission and I was very satisfied with its performance.

QUESTION SUBMITTED BY SENATOR BYRD

MILITARY ROLE IN THE DRUG WAR

QUESTION. Southern Command is expected to play a large role if the Department of Defense gets further involved in the war on drugs. Is Southern Command properly staffed and organized for that mission? Please include in your response whether that mission would include the use of military advisers, the interdiction of drug shipments into the United States, and direct assistance to foreign military or police forces.

ANSWER. I am sure that you are aware that this command has undergone a major transformation in the last six months.

[Deleted]

Finally, the counternarcotics mission is directed by the policy which Secretary Cheney issued on 18 September 1989. As I have stated elsewhere on the record I am authorized to employ military advisors to conduct such missions as intelligence and training operations as long as I have adequate security. Also, as I have stated, DoD personnel will not accompany host nation forces on field operations. Presently, it is the DEA that accompanies host nation personnel on operations.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

EQUIPMENT PERFORMANCE, OPERATION JUST CAUSE

Question: Could you comment on the apparent reliability problems suffered by the 82nd Airborne's AH-64 "Apache" attack helicopters?

Answer: The reliability problems with the AH-64 "Apache" which you refer to surfaced from media reports following Operation JUST CAUSE. I would say that those media reports are exaggerated. During routine operations either the pilot, member of the crew or maintenance specialist detected potential problems on two aircraft from instrument panel indicators. These aircraft were temporarily deadlined and corrected. These were isolated incidents and do not reflect any systemic problem. Both aircraft were returned to full operational service.

Question: Could you comment on the AH-6F "Little Bird" special operations helicopter losses, particularly what role daylight operations played in the losses?

Answer: The

[Deleted]

Question: Could you discuss the difficulties that arose during the SEAL operation at Paitilla Airfield?

Answer: At Paitilla Airfield the Navy SEAL team encountered unexpectedly strong resistance from a force that was concealed and covered. We lost four team members. However, the entire mission was accomplished.

Question: Could you comment on the performance of the Light Armored Vehicle (LAV) and the Sheridan tank? Also, if you care to speculate, on the advantages or disadvantages of the assault gun variant of LAV (LAV-AG) as the near-term solution for the airborne and light divisions' requirement for a light tank?

Answer: I have stated earlier for the record that I think both the Light Armored Vehicle (LAV) and the Sheridan tank worked fine both in the city and in the countryside. I also have noted that the LAV, unlike the tank, does not have the capability to go over rubble. That notwithstanding they were both used in and around the Commandancia, for example, and they worked great.

Finally, I have not seen the performance data on the assault gun variant of the LAV, the LAV-AG, and, until I do, I do not want to speculate on its potential as a light tank for the Army's airborne and light division.

LOW INTENSITY CONFLICT

Question: Could you comment on the assertion that the U.S., in identifying Low Intensity Conflict as the wave of the future, has embraced the lowest of the low, commando-style raids, while largely ignoring conflicts of somewhat higher intensity and longer duration, i.e. counterinsurgency?

Answer: I am not familiar with the source of this assertion but I believe it is based on a different definition of low intensity conflict. I would no more characterize low-intensity conflict now as "the wave of the future" than I would have characterized terrorist bombings as the "wave of the future" ten years ago.

USSOUTHCOM is doing extensive research and operations to determine the cause and effects of such conflict, especially in our theater. Two of my predecessors, General John Galvin and General Fred Woerner have written extensively on the subject. They will co-author a more than 300 page book on low-intensity conflict which will be published shortly.

Commando-style raids as an operation addresses only one small action by either friendly or enemy forces engaged in armed conflict in any type of environment.

Defeating counterinsurgency is one of my primary missions. It is as important to me as defeating narcotics trafficking. Counterinsurgency operations are far more complex than simply commando-style raids. One cannot be substituted for the other in the low-intensity conflict environment. Counterinsurgency operations involve the coordinated efforts of the political and military leadership and involve such actions as providing for respectable, democratic government, maintenance of public facilities, providing essential government services, participation of the people in the selection and administration of government and freedom from external threats and internal strife.

In many countries in Latin America insurgency and narcotics trafficking are linked to government and economic instability. Therefore, counterinsurgency and counternarcotics operations often target the same sources for resolution.

Security Assistance is my number one tool to implement my counterinsurgency strategy in my area and we either have in place or are putting in place the structure to conduct counterinsurgency operations successfully.

SPECIAL OPERATIONS COMMAND

STATEMENT OF GEN. JAMES LINDSAY, U.S. ARMY, COMMANDER IN CHIEF, SPECIAL OPERATIONS COMMAND

INTRODUCTORY REMARKS OF SENATOR INOUYE

Senator INOUYE. Now we will hear from General Lindsay.

On behalf of the committee, I welcome you, sir.

You will note that the full committee is not here, but I am certain you realize that at this moment three other Appropriations subcommittees are having hearings and we have to be scattered all over the Hill.

Before you arrived, I congratulated General Thurman on the superb performance of the men and women under his command in the Panama operation. And I wish to extend to you congratulations as well, because your forces, the first to arrive, were an integral part of the team, and we think that you are to be highly commended for the outstanding job in planning and execution.

I hope you can update us on your joint mission analysis and explain in some detail how you are proceeding to implement the wide-ranging responsibilities that the Congress assigned to you when we created your Command 4 years ago.

We will be interested in learning more about your nation-building strategy and civic action programs, as well as the support for what you term foreign internal defense. These capabilities will be of increasing importance to us as we deal with the rapidly transforming world and we focus our attention more on theaters of operation outside the cold war stage of Europe.

We also wish to hear from you on your equipment needs, your report on the progress in training, and how you are getting along in your relations with the individual services as you build your unique capability.

We have heard from General Thurman, and you were sitting there for part of his testimony. So we are obviously anxious to hear your views on that operation and the followon civic action teams under your command. Once again we welcome you, sir, and you may proceed as you wish.

General LINDSAY. Thank you. I am honored to be here, sir.

SYNOPSIS OF STATEMENT

I have submitted a statement for the record, and what I would like to focus my oral comments on four areas that are contained in that statement. I will talk about our support to Operation Just Cause that General Thurman just described and the follow-on operation, Promote Liberty; talk about Special Operations Forces readiness and our requirements, which you just asked me about; talk about our POM budget and acquisition status, which was a unique part of the legislation, as you are aware; and talk about operations and maintenance funding.

OPERATION JUST CAUSE

First to talk to Just Cause and Promote Liberty. As you know, I was a supporting command, supporting General Thurman. I provided 4,150 personnel. I had Special Forces, Psychological Operations, and Civil Affairs Forces. I had 71 of my own aircraft and 103 supporting aircraft.

In Promote Liberty, the follow-on operation, the nation-building side—postoperative recovery, you might also call it—initially I had about 1,000 people there right now I have 428. General Thurman referred several times to the Special Forces teams that are scattered throughout Panama. Those come from our Command.

I would like to highlight some of the reasons for the success of Operation Just Cause. First of all, the forces were ready as a result of a very vigorous joint exercise program, and I underline the word "joint" because whether it is a squad, a platoon—even the smallest operation we run, it is joint in that we mix all our services, not just the unconventional forces, the Navy SEAL's with the Rangers and so forth, but conventional as well.

And that paid tremendous dividends in Operation Just Cause. As a matter of fact, I would share with you a part of that experience. Back in July—well, to back off even further, this operations plan for Panama, as a contingency plan, has been around for a long time and, as General Thurman alluded to, it has gone through several iterations. It warmed up somewhat in the spring of 1988, as you may remember.

But in July I had all my commanders in and we were reviewing Just Cause. It was then called Blue Spoon. And as I was reviewing it, I said: You know, this is the most complex operation I have been associated with in 38 years in the military, and I really think we ought to do a full-scale rehearsal of this thing, because if we have to go, I am concerned as to the complexity of the operation.

So it is a big operation. It took a while to put it together. But we actually ended up on the night of December 14, running a full-scale, not rehearsal because we did not know it was going to go the following Tuesday or Wednesday morning, but a full-scale exercise.

We did everything we would do on Just Cause. And so on Sunday morning the 17th, when General Powell called me and inquired as to our readiness, I was able to tell him that we were ready and willing and able, and it paid off, as the exercise showed.

Our equipment worked. You asked General Thurman about equipment a few moments ago. We had 174 aircraft in the operation. Now, we had to use spares in a couple cases, but every single aircraft delivered the cargo or the people it was supposed to deliver where they were supposed to deliver them, no problem.

The AC-130 gunship, although old—the H models are 20 years old, the A models are 30 years old—performed superbly as a surgical capability.

Logistics support was excellent. We had an advantage, as you know, in that we had some fixed bases down there that made it a little easier than normal. One of the things I have learned is we need to robust or build our logistical infrastructure somewhat, we are working on that.

Command and control was as fine as I have seen. We had a great team in General Thurman and General Stiner. General Stiner, who you have not heard from, is to me the finest warrior in the military today, and he demonstrated that in Operation Just Cause.

I prepared the forces, I trained them, put a command and control package together headed by Major General Downing, who was chopped to General Stiner by General Thurman.

We have been rebuilding the SOF forces for about 10 years, and there was nothing ad hoc about this. Not only had all these units worked together, but the individual people had worked together for a long, long time. They knew one another, and it paid off.

The final point on the operation would be the fact that people tend to talk about it as an Army operation. We actually had 800 Air Force and 500 Navy people involved in the operation.

My final point would be on people. The professionalism, individual professionalisms and unit proficiency was as fine as you could find.

READINESS OF OUR FORCES

I would like to shift gears now, sir, and talk to the readiness of our forces, both the Psychological Operations, Civil Affairs, as well as Special Forces. It is higher than at any time that I can recall, and that is a direct result of the Special Operations revitalization and the support from the Congress and the services and the Department of Defense.

As you know, the military is going through a significant restructuring as we look to the future and where we are going as we look at the changing situation in the world. But the Office of the Secretary of Defense and the Joint Chiefs, have recognized the forces in USSOCOM have a unique role to play in this changing world; and as a result, while other forces or structures are being cut, we are actually expanding somewhat.

Now, I could talk at great length about all the good things going on, but I would like to focus on some of the challenges or problem areas. First, infiltration-exfiltration, both air and maritime. In the air, as you know, one of the key factors in the legislation you passed to create this Command centered around the reluctance of the Department of Defense to fund and program the aircraft we needed to infiltrate and exfiltrate our forces.

Those resources are in the program now, and we will pretty much have things fixed over about the next 3 years. We are going to add 24 additional Combat Talons. We right now have 14 Combat Talons. That is a deep penetration MC-130. We will add 24 for a total of 38.

We are getting 12 AC-130U gunships, which will significantly enhance our gunship capability. We are right now midway through product improving 41 MH-53J medium-range Pare Low helicopters There are 51 MH-47 Echoes in our acquisition plan.

I might add, when we get to the questions, there is an issue you may want to talk about. You may have seen a GAO report that challenges my requirement for 51 MH-47 Echoes. We can talk about that later. I would tell you, I cannot say for a fact that, given the changing situation in the world, that I can justify every one of those 51 helicopters. On the other hand, the GAO report says stop the buy at 17. I can tell you intuitively I am going to need more than 17. I will come back later on to how I think we ought to go about addressing that issue.

We also are going to get 23 MH-60K's. Those are all in the program.

EQUIPMENT

On the sea or maritime side, we need a replacement for the SEAL delivery vehicle. It is a wet submersible. It really poses some problems in some areas of the world, because you are in there and you are wet, and you are cold. I have been in them, and I have some body fat on me at my age, and the young SEAL's have no body fat, and even with the body fat I have, it is a very frigid environment in which to work.

We were working with the Navy to develop an advanced SEAL delivery system. As a result of directions from the Congress, we were asked to hold that in abeyance and take a look at an off-the-shelf dry submersible which is being produced or that has been produced [deleted]. We are in the process of doing that right now, and when we complete that look, we will decide whether we want to go back to the advanced SEAL delivery system or buy the off-the-shelf item.

We also need a better SEAL tactical insertion craft and we need better patrol boats. The patrol boats we have now are basically Vietnam vintage patrol boats, and they are slow. We need something faster and more modern.

On the communications side, we have lived with hand-me-downs for some years, and as a result we have equipment that is not user friendly, if you are on foot or entering an area by parachute. Current equipment is frequently designed for fixed base operations.

We need to get downsized equipment that our foot-mobile forces can carry with them and be more effective, as a result.

We also need to do more work in developing a low probability of intercept, low probability of detection capability. We are working that. That money is in the program also.

FORCE STRUCTURE

Force structurewise, we have a mix of Active and Reserve components. The command is a relatively small command. We have about 44,000 people in it. Of those 44,000 people, 17,000 are in the Reserve components, and they do great work. Our Civil Affairs and PSYOPS forces especially are very professional, really fine people.

But there is a slight problem here that we need to address. Because we have such a large portion, particularly of our Civil Affairs, in the Reserve component, we have to call them up in crisis situations. And a call-up in a low-intensity conflict or FID—foreign internal defense—environment may be difficult to do.

We need to look perhaps at increasing the structure in the Active component. Now, as it turned out in Panama, we went out with a call for volunteers on Christmas Eve, and we got tremendous numbers. We got all the volunteers we needed.

The problem was that it was very difficult for some of those people to go tell their boss that they wanted to volunteer to go to war in Panama and, oh by the way, I will be back some time and I expect to have my job. That is hard to do.

So as a result, about 80 percent of them were only able to get off work for about 30 days. So right now, as we speak, we are getting ready for our fourth swapout of some of those people. They go down for 30 days, and then we have to bring another group in.

But they are doing fine work. It is just a question of the fact I think we might need a little more in the Active component side there.

I have a number of other items on readiness that are in my prepared statement.

The final point on readiness has to do with the fact that we basically for years used equipment that was originally designed for conventional forces. We need to do two things: We need to do a better job of articulating our needs to the R&D community; and we need to do a better job in USSOCOM of funding a technical base for R&D.

I think there is a great return there for a relatively small investment, and we are working that into our 1992–97 program as we build it.

PROGRAMMING, BUDGETING, AND ACQUISITION

The final issue I would like to talk to has to do with programming, budgeting, and acquisition. We have full authority to develop our own program for Special Forces, PSYOPS, and Civil Affairs, and we will submit our first program—an historic event, the first time a unified command has ever submitted a program—on April 30 this year.

We will execute our own budget on Major Force Program 11, which again was created by the Congress, on October 1 this year.

On the acquisition side, last year when I talked to you I mentioned the Logistics Management Institute had just completed a study of how we ought to go about discharging our responsibilities on the acquisition side. We took that study, fine-tuned it, refined it, and came up with an organization we call the Special Operations Research, Development, and Acquisition Center.

I went to the Department of Defense and the Joint Chiefs to get the people to man it. We got 77 people, plus we are going to add some of my own, for a total of 104 people that are going to be in this Special Ops Research, Development, and Acquisition Center.

The spaces I got from DOD are for 1991. I now have a request in to hire eight people this year. I will put about 6 of my own with them, for a total of 14 people to put up the flag for this acquisition center, which we located here in the Washington, DC, area.

And I would emphasize that we do not intend to duplicate or replicate anything the services are already doing. Their mission will be, on those big dollar items that we work through the services, such as the aircraft I mentioned a moment ago, to perform as program monitors. We will validate, we will prioritize the requirements, and our program monitors will monitor how the services are doing.

If it is small dollar, low density, SOF-unique, then we will do that in-house. We will have our own program managers.

So we are moving out on that, and I am very pleased with the way things are going right now.

OPERATIONS AND MAINTENANCE

On operations and maintenance, as you know, our investment accounts meet our current and future threats. However, O&M gives us our near-term readiness. And the long-term trend in operations and maintenance is good. If you look at 1988, we had $397 million. In 1992 we are programmed to have $572 million.

There was a slight dip between 1989 and 1990, and it is misleading because it was actually a function of some one-time plus-ups in fiscal year 1989. So the trend line there is good.

JOINT MISSION ANALYSIS

The joint mission analysis, you asked about that in your opening comments, Senator. That is the single most important thing we are doing in the U.S. Special Operations Command right now. As I put the Command together, I looked at the work in this area that had been done by each of the services, and each of the services had done a mission analysis of some sorts. In a mission analysis, for those of you who may not be familiar with it, you look at the mission, you look at the threat posed against that mission, and then you look at what you need by way of people and equipment and the organizations into which you put them to accomplish that mission.

While each of the services had done this, it had not been done on a joint basis. So I tasked the staff to get started on that. But as I looked at it, it was very clear we could not do it in a vacuum.

I am a supporting CINC for the five war-fighting commands, such as General Thurman. So we briefed all five war-fighting CINC's as a group in early 1988 and proposed to them that I do this and that each of them put up a team of about 40 people to work with me. And they all signed up to that. I also went around individually to brief them.

We started out in Southern Command, where we put up a team of 40 people. General Werner, who was then Commander in Southern Command, put up 40 people. And we thought we would do it in about 6 months. Because of Just Cause and the fact General Thurman came in and had some new ideas of his own, we are just now this month wrapping up the Southern Command mission analysis.

The Pacific mission analysis is just completed also, and we are starting next week in Europe.

It is going to be 18 months before we finish the joint mission analysis. The significance of this lies in the fact that we are building the program for 1992–97 now, and all I have to work with from that JMA are the emerging trends from Southern Command and Pacific Command. So there are going to be a number of areas where, I would submit, if we can wait to make a final decision on the quantity or the amount of certain buys, if we wait a year to 18 months until we finish the joint mission analysis, we can validate what our actual requirements are. As you know, the world situation is changing very rapidly, and we need to stay abreast of that, and the JMA will help us do that.

Sir, my final point would be that in my statement to you last year, I likened our Special Forces in the nation-building role to units that do preventive medicine, and I talked to our direct action or strike role as a surgical role. So we do preventive medicine and we do surgery.

If you look at what we are doing in Panama now in Promote Liberty, you might also say we do post-operative recovery. So we really have three missions.

And in short, I would submit to you that our PSYOPS, Civil Affairs, and Special Forces are ideally suited to deal with the types of challenges and threats that we are going to face as we enter the twenty-first century.

Thank you very much, sir.

[The statement follows:]

Statement of Gen. James J. Lindsay

INTRODUCTION

It is a pleasure to appear before you and address special operations issues. Special operations forces are entering a new era. The USSOCOM staff is now building the organization needed to take responsibility for executing the fiscal year 1991 SOF budget. The staff and our component commands are also preparing the fiscal year 1992-97 program. Your continued support and recognition that special operations forces represent tremendous capability at relatively low cost have helped improve our posture significantly. We thank you.

THE CHANGING WORLD OF THE 1990'S

The changing nature of the Warsaw Pact will dominate political and military thought in the coming decade. The bipolar world of the USSR versus the United States is quickly being replaced with a new array of emerging national and regional power groupings.

Terrorism, insurgency, instability, and subversion have grown in the face of rising nationalism and religious fanaticism. We are facing increasing prospects for low-intensity conflict involving U.S. interests abroad. Distribution of powerful conventional and chemical weapons of great lethality is growing. We find them in the arsenals of Third World countries and in the hands of radical factions around the world. The U.S. must focus on the early detection of potential crisis, seek peaceful solutions; yet, maintain a capability to respond if peaceful solutions fail.

USSOCOM STRATEGY

Military Objectives.—Special operations, psychological operations, and civil affairs activities may be conducted independently or in coordination with conventional operations during peace or hostilities. Objectives assigned to special operations, psychological operations, and civil affairs forces are often as political, economic, or psychological as they are military. These forces may be assigned missions that lead directly to the accomplishment of national or theater level political, economic, or psychological objectives. To achieve this capability requires properly organized, trained, equipped, and sized USSOCOM force structure.

In the 1990's, the principal role for the armed forces will be the maintenance of a credible deterrent force capable of reacting rapidly and effectively to worldwide crises or contingencies, and other threats to our national interest, to include monitoring and detection of illicit drug smuggling into the United States.

Capabilities of military forces.—As the threat of a direct confrontation with the Soviets diminishes, it is being replaced by those elements capable of generating low-intensity conflict. No one military capability or type of force can be singled out as the answer to resolving these conflicts. Conventional U.S. military capabilities can often be tailored to accomplish specific tasks in a low-intensity conflict. The goal is to improve both conventional and special operations capabilities to counter the threat posed in low-intensity conflict, and insure this force mix is mutually supportive. The most cost effective and appropriate means of achieving national goals in low-intensity conflicts will likely be indirect rather than direct application of military power.

The DOD program to combat terrorism is divided into two principal components: antiterrorism and counterterrorism. Antiterrorism is the "defensive measures used to reduce the vulnerability of individuals and property to terrorism." SOF support the DOD antiterrorism program through facility assessment and risk evaluation. Counterterrorism is "offensive measures taken to prevent, deter, or respond to terrorism." SOF must be an integral part of the counterterrorism program. This will permit the special operations forces to: provide the best military response, continue to support the interagency program to combat terrorism, and continue to reinforce international cooperation as the key to the national program, to combat terrorism.

USSOCOM supports the national counternarcotics effort through programs to assist and train DEA personnel and host nation military and police forces. This training includes small unit tactics, river patrol and monitoring and detection, intelligence collection and analysis, as well as a variety of specialized courses of instruction.

Strategy to link objectives and capabilities.—First, we must complete revitalization begun in the 1980's and modernize for the 21st century. In the past, SOF has, for the most part, been required to use equipment originally designed for the conventional forces but later modified to support SOF. We were late comers and initially low-priority players in the DOD revitalization efforts of the early and mid-80's. Now, as we are poised to improve our capabilities with planned joint and interoperable systems, we are faced with a shrinking DOD budget. SOF need the resources to push the technical community to design equipment that meets our needs, while continuing to upgrade present systems. The most important modernization concern for the 1990's is for improved SOF mobility systems. SOF must have the capability to infiltrate and exfiltrate forces into and out of denied areas. Of almost equal importance is the requirement to enhance our communications capability. Additionally, resources must be adequate to provide SOF with state-of-the-art capabilities for intelligence collection, processing, dissemination, and automated mission planning and rehearsal. It is also essential to provide SOF the most modern weaponry possible, and it is critical that capabilities to carry out psychological operations and civil affairs operations be modernized.

Second, USSOCOM must complement the modernization effort with proper force structure. The number of active units is currently not sufficient to support all theater requirements without dual tasking some forces. For example, the recent operation "JUST CAUSE" emphasized the need to free 7th Special Forces Group from other commitments for full focus on Latin America. Consequently, as an interim measure a battalion of the 5th SFG, which supports CINCCENT, will pick up the responsibilities left vacant by the redirection of the 7th SFG. Until the 3rd SFG is activated, dual tasking of organizations will dilute the focus on area orientation and concentrated theater commitment. With the addition of the 3rd SFG, with its African orientation, SOF will be capable of fully supporting the three most likely areas for low-intensity conflict (Latin America, Pacific rim, Africa), as well as supporting Europe and southwest Asia commitments.

Our third priority is force readiness. We must ensure that our special operators and units have the operations and maintenance funds to train and exercise to the highest levels of mission-essential standards. Our forces rapidly succumb to a serious readiness deficiency when there is a shortage of qualified personnel to bring units to full strength. SOF missions, to include PSYOP and civil affairs, are complex and require fully manned units. SOF personnel must be dedicated to their career specialties. These specialties entail long-term career development to include knowledge of culture, language, and customs of foreign countries.

READINESS

The active and reserve component readiness of the command, overall, has improved in the past year. The readiness reporting system continues to highlight problem areas that we resolve, or work with the appropriate service to resolve. Special operations forces, compared to conventional forces, are maintaining relatively high states of readiness as measured by the status of resources and training system.

Active component/reserve component mix.—The overall SOF reserve component contribution to the total force is adequate and workable. However, each service component organizes SOF to meet wartime requirements as specified by its parent service. As USSOCOM matures and reassesses the adequacy of SOF to support global requirements, adjustments to the active component/reserve component mix may be appropriate. Any realignment must improve the effectiveness and efficiency of SOF in support of wartime requirements. In the low-intensity conflict environment, the restrictions placed on deployment/employment of the reserve component during contingency operations could be limiting.

Reserve component mission.—A basic tenent of the total force policy is that national guard and reserve units constitute the primary augmentation of the active component in military conflicts. USSOCOM relies on its reserve and guard SOF to provide support to theater commanders. For example, some Naval special warfare boat units come from the Naval Reserve, special forces groups are in the reserve component, some authorized AC-130 gunships are in the Air Force Reserve, and U.S. Army Reserve personnel make up a significant portion of psychological operations and civil affairs forces.

Reserve component readiness.—Reserve component SOF have demonstrated their readiness by superb performance in selected assigned missions. There are, however, several problem areas in reserve component SOF. While some progress has been made, there are no short cuts or short-term solutions. One initiative which holds particular promise focuses recruiting efforts for reserve components on active component personnel who have recently separated from active service. This will minimize the number of initial entry personnel who require extensive, time-consuming training to qualify in required SOF skills.

Army reserve component special forces units train to established standards for operational readiness in all special forces missions. However, due to limitations in training time available, units face formidable challenges in training to and maintaining the high standards required for these missions. USSOCOM is working with the Department of the Army to refine the mission essential task list for reserve component special forces groups and to limit each unit to one specific mission for which it can attain and maintain high levels of readiness.

Training.—During the last year, this command and its components have made advancements in SOF training. The following is a breakout of specific achievements and improvements:

There have been several interoperability enhancements at the various SOF schools. Army, Navy, and Air Force special operations personnel are attending consolidated courses in basic and advanced medical, airborne, communications, and dive skills.

Progress has been made in consolidating all SOF training requirements for the components and assisting the regional special operations commands in integrating joint SOF training. USCINCSOC has established quarterly training workshops to identify training requirements and coordinate the interservice support required to make more efficient use of joint SOF training opportunities.

Language.—All theaters require qualified linguists in special forces, civil affairs, and psychological operations units. The Army has never met its SOF linguist requirements—a problem that has persisted for three decades. Active duty special forces language training programs do not produce sufficient numbers of adequately qualified linguists. However, language proficiency pay is providing some incentive for soldiers to develop and maintain language proficiency. In the reserve component, limited drill time, length of language training programs, and the perishable nature of language skills exacerbate problems found in the active forces. These factors present an almost insurmountable problem for reservists. Recent authorizations for language proficiency pay for reserve linguists have had little effect. A DOD language working group has been established to work these language problems. This effort will update and improve SOF language training programs.

Our basic operating units in the special forces, the A-teams, have a geographic orientation. This allows us to focus their efforts on the language, culture, and military practices of a particular region or country. In each A-team, we need a small core (cadre) of men who can skillfully teach and translate in the language of the team's assigned region or country. Not every A-team member needs to be a linguist. To develop and maintain the required core of language trained special forces soldiers, the John F. Kennedy Special Warfare Center and School (SWCS) has a training strategy for special forces that entails the following:all Special Forces Qualification Course (SFQC) graduates will attend the Special Forces Functional Language Course (SFFLC) as initial entry training; selected SFFLC graduates will attend a follow-on, enhanced SFFLC. The enhanced course will focus on general proficiency knowledge and language manipulation, still maintaining a SOF orientation; and SWCS currently has a program of six languages with seven other languages under development.

Readiness portion of the budget.—As we know, the investment accounts and their aircraft programs are required to meet current and future threats. However, it is our operations and maintenance dollars which gives us near term readiness. As Table 1 illustrates, our operations and maintenance program increased from $397 million to $524 million from fiscal year 1988 to fiscal year 1990. Our funding then goes to $573 for fiscal year 1991. Table 2 illustrates these changes by service.

TABLE 1—DOD SUMMARY

[Then year dollars in millions]

	Fiscal year—			
	1988	1989	1990	1991
O&M	397.2	544.5	523.9	572.7

TABLE 2—O&M FUNDING

[Then year dollars in millions]

	Fiscal year—			
	1988	1989	1990	1991
Army	215.9	224.0	237.3	264.2
Navy	73.2	107.2	98.3	99.9
Air Force	108.1	213.3	188.3	208.6
Total	397.2	544.5	523.9	572.7

COMMUNICATIONS

Communications interoperability.—The USSOCOM command and control system master plan was published in August 1988. This master plan documents the command's command, control, and communications system and details its requirements for SOF worldwide, establishing the basis of communications interoperability. The fiscal year 1989 master plan extended the scope of the command's command, control, and communications system to include the regional CINCs' special operations headquarters requirements.

The joint SOF command, control, and communications interoperability program working group is an ongoing body, chaired by USSOCOM, that meets quarterly to coordinate initiatives.

Communications status.—Five major projects have been undertaken to enhance the communications posture of HQ USSOCOM:

—The Joint Advanced Special Operations Radio System (JASORS) remains one of USSOCOM's top priorities for SOF. JASORS is an acquisition program to acquire the next generation special operations radio system. This program will acquire a lightweight, low probability of intercept/low probability of detection (LPI/LPD), jointly interoperable, secure, manportable communications capability for SOF operational elements. The Army is executive agent with the special operations forces office in the Army material, communications, and electronics command designated as the material developer. JASORS has RDT&E funding of $66M spread over five years starting in fiscal year 1990. Initial production funding is approved for fiscal year 1993; contract award is scheduled in Aug 90; and first unit equipped Feb 95.

—Interim command, control, and communications for USSOCOM. This is a dial-up secure voice, facsimile, and data capability connecting HQ USSOCOM, its Washington Office, and all major SOF components.

—Data broadcast system/project SCAMPI. This is a network of leased fiber optic circuits that tie together principal players in the SOF community and national agencies in CONUS. It provides secure voice for both special intelligence and top secret, and the transmission media for automated intelligence and operations systems.

—Red Switch. This is a fully secure system which provides state-of-the-art consoles for the USSOCOM command center and command switchboard, as well as secure communications among personnel within HQ USSOCOM and to other unified and specified commands and selected components.

—USSOCOM administrative telephone upgrade. This is a replacement of a leased system. It will provide secure and nonsecure administrative telephone service within the USSOCOM buildings and worldwide. Elimination of the leased system will result in a savings of several hundred thousand dollars per year.

INTELLIGENCE

Prior to the establishment of USSOCOM, there was no single spokesman for SOF intelligence needs nor were SOF requirements fully integrated into the intelligence community processes. Since its formation, USSOCOM has made significant progress in developing SOF intelligence capabilities to support special operations across the spectrum of conflict and has assumed functional leadership on SOF intelligence issues.

The development of a worldwide intelligence architecture has been the cornerstone of our effort. The USSOCOM intelligence staff is working with each theater CINC to develop a SOF subarchitecture for each of their theater intelligence architectures. These subarchitectures will describe SOF needs and delineate how deploying SOF units will plug into the theater structure. This effort is critical to our role as a supporting command and will ensure worldwide compatibility and interoperability between SOF and conventional forces. SOF subarchitectures have been developed for EUCOM, SOUTHCOM, CENTCOM, PACOM, and LANTCOM. These joint architectural efforts represent the first systematic approach for integrating special operations requirements and theater intelligence capabilities. A principal outcome of this effort is the command architecture implementation plan, developed in coordination with the regional CINCs, which programmatically addresses shortfalls and deficiencies.

A major accomplishment for the integration of SOF intelligence will be the activation of the Special Operations Command Research, Analysis and Threat Evaluation System (SOCRATES). This system is an umbrella architecture designed to integrate existing and planned intelligence automation capabilities. It provides for secure exchange of data bases, voice and facsimile transmission, and secondary imagery transmission. Its configuration is based on commercial off-the-shelf technology, and it provides extensive unique capabilities to intelligence analysts, planners, and operators. For the first time, worldwide threat order of battle, installation and facility data, and tailored current intelligence is available at a single workstation. This system provides our components access to USSOCOM data bases with planned connectivity down to the special forces groups, Air Force special operations wings, and Naval special warfare groups. This system, which uses the communications of the data broadcast network, provides near-real-time dissemination of collateral and sensitive compartmented intelligence between USSOCOM, its components, and the national intelligence community and provide SOF with unprecedented access to community intelligence products. Inherent within the SOCRATES architecture will be the potential for worldwide support to deployed SOF.

In May 1988, USSOCOM became the first unified command to install the Swift Hawk Collection Requirements Management System. This capability has greatly enhanced the command's ability to submit intelligence collection requirements for deliberate planning and targeting. Work continues within USSOCOM to develop operational concepts for human, imagery, and sigual intelligence support of special operations forces in peace, crisis, and war. These concepts will provide guidance on requirements and dissemination for each intelligence discipline and will specify procedures for deploying SOF.

Intelligence production needs and readiness related intelligence challenges have been documented. The gap between requirements and production continues to be monitored throughout the intelligence community. A major problem is the need to expand and improve intelligence production in the support of low intensity conflict environment and in Third World areas where SOF have the highest probability of being deployed.

Intelligence support to the special operations targeting process is unique because of the associated complexities and the need for extremely detailed intelligence. To address SOF targeting issues, USSOCOM has initiated annual conferences on intelligence support to SOF mission planning. Major outcomes include the development of joint doctrine, techniques, and procedures that will ensure common, interoperable approaches and refine supporting intelligence requirements. During regional conflicts or contingencies, SOF can expect to be supported with all available resources in order to achieve accelerated target planning. The national agencies have responded by establishing crisis support mechanisms that can put near-real-time intelligence in the hands of operators. This also applies to the mapping, charting, and geodesy requirements of SOF. We have developed a good dialogue with the defense mapping agency, and with the improved connectivity provided by SOCRATES our mapping support will get even better. While this increased support will enable rapid development of contingency plans, peacetime mission planning requirements continue to compete with all other day-to-day requirements placed on the limited number of intelligence support assets.

OPERATIONAL REQUIREMENTS

Summary of worldwide USSOCOM commitments.—It is appropriate to take a few minutes to provide you with a representative sample of USSOCOM's worldwide commitments. Since April 1987, USSOCOM's forces have made over 500 deployments to 59 countries.

Army special forces and Navy SEALs have been key providers of security assistance training to friendly nations. These forces have conducted more than 40 mobile training team deployments to more than 20 countries to train host nation military forces as part of the foreign military sales and military assistance efforts in nation-building. Additionally, some 66 bilateral exchange training events and special operations deployments for training have provided a significant presence in areas where no U.S. military forces are stationed.

Humanitarian assistance operations have had high impact in Africa, the Caribbean, and Latin America. There are three notable examples of the kind of work USSOCOM forces are asked to perform in this important area. First, we conducted the search and recovery operation in Ethiopia to find Congressman Leland. Second, we deployed civil affairs advisors and psychological operations loudspeaker teams to St. Croix in the aftermath of Hurricane Hugo last September to assist in disaster relief and to provide emergency information to the local population. A final example was the involvement of U.S. special forces personnel in the multinational United Nations effort to train Afghan refugees in Pakistan in land mine awareness and clearing techniques.

In the important area of counter-drug operations, USSOCOM provided communications support to the U.S. Coast Guard, trained Drug Enforcement Agency (DEA) personnel in riverine and jungle operations, and provided training in military-related skills to counter-drug personnel of other nations. Special operations force training skills have been applied to stemming the flow of illegal drugs at the source.

In operation "JUST CAUSE", USSOCOM forces demonstrated their capability and commitment to respond militarily during a crisis. Our forces were involved in the Panama situation from the beginning. Further, Army special forces, civil affairs, and psychological operations forces are likely to remain committed to the nation-building effort long after the assault forces redeploy.

USSOCOM special operations forces led the way in the seizure of key assault objectives to neutralize Panamanian Defense Forces (PDF). U.S. Army rangers conducted night parachute assaults to seize Rio Hato Airfield and the Torrijos/Tocumen International Airfield to deny their use and to block the movement of key PDF forces. One U.S. Navy SEAL element conducted a night swim to successfully disable PDF patrol boats, while another attacked over the beach to neutralize Paitilla Airfield, to prevent its use by the PDF. At the same time, Army special forces elements established surveillance on key PDF military installations and seized the Pacora River bridge to deny its use by the PDF. These operations were covered by SOF active and reserve AC-130 gunships and supplemented by Army and Air Force SOF helicopters. Our efforts combined with the conventional forces succeeded in preventing the PDF from mounting effective resistance and contributed to the overall success of the combat operations. Our psychological operations and civil affairs forces also played a key role in the tactical effort.

Critical operational deficiencies.—Forces assigned to USCINCSOC are prepared to execute missions assigned in global/regional OPLANs; however, lingering deficiencies limit current capability to execute all tasked and emergent missions.

Force structure. Shortage of long-range exfiltration aircraft remains a serious problem; we are currently assessing how to develop and procure a suitable airframe. Funding and acquisition initiatives for Navy SEAL tactical insertion craft and the advanced SEAL delivery systems are required to build an effective wartime infiltration/exfiltration capability. Additionally, Persian Gulf operations and events leading up to operation "JUST CAUSE" surfaced the need to accelerate the coastal patrol boat initiative and upgrade the Navy small boat SOF support program.

Modernization. All theaters have urgent modernization requirements for SOF. Highest priority is for a long range aircraft designed to carry SOF troops into and out of unfriendly territory. Second priority is development of more effective manportable radios. In these same areas of mobility and communication, the rangers have recently identified shortfalls in land mobility noting the need to accelerate replacement for the M-151 modified jeep; and the need to pursue downsized communication gear to replace antiquated, bulky sets. Additionally, insufficient dual dry-deck shelter (DDS)-configured submarines (SSN/SSBN) impair SEAL platoon capability to penetrate some hostile or politically denied waters.

Readiness. The most serious readiness deficiency is the shortage of qualified personnel in some military disciplines. Particularly, qualified linguists in special forces (SF), CA, and PSYOP units continue to be a problem; however, our language instruction capabilities are improving.

Sustainability. Theater SOF support plans are not fully integrated into theater combat support and service support systems. This problem is particularly acute in our Air Force components. Additionally, the events leading up to "JUST CAUSE" validate the need for a maritime operations facility to conduct riverine and/or offshore maritime operations to support SOF in areas that may be or may become politically denied.

Priorities/initiatives to correct the deficiencies.—In light of the previously mentioned deficiencies, it is appropriate to say that we in the SOF community, as a result of your significant efforts on our behalf, have the capability to begin correcting our most critical deficiencies. Our fiscal year 1992-97 funding program, which we are currently building, will give greater emphasis to modernization and force structure yet provide a balanced readiness and sustainment program. In the past, we have too often accepted equipment, originally designed for conventional forces, that was later modified to support our forces. Now we can push the technical community to design equipment from the ground up that meets our unique requirements.

We will insure that the growth plans for the SEALs and special forces are properly funded. From the special operations viewpoint, we are pleased to have control of our fiscal year 1991-97 fiscal program.

Adequacy of fiscal year 1991 budget.—Of a more immediate nature, the fiscal year 1991 budget supports the continuing revitalization of our special operations forces. Indeed, SOF budget levels have remained intact, which shows the priority that DOD has put on improving SOF capabilities. The activation of an Army special forces group and the increase from 50 to 60 Navy SEAL platoons are included in the fiscal year 1991 budget. Overall, the operation and maintenance funds projected for fiscal year 1991 will keep our forces ready to meet our worldwide requirements and the investment appropriations will continue our much needed modernization efforts.

As you are aware, the fiscal year 1991 budget request marks the first time that SOF funds will be moved out of service appropriations into defense agencies appropriations. This is a significant milestone and provides us with a degree of budget control that no commander of joint forces has ever had before. As we mature in the management of funds not limited by service boundaries, we will greatly improve our capability to develop and sustain interoperable special operations forces.

LEGISLATION AND USSOCOM

This command was created after enactment of the DOD reorganization act and has always operated under its provisions. Our experience indicates that the act has resulted in a number of improvements, some of which were apparent in recent operations. Two of the most important provisions were those which enhanced and clarified the authority of the Chairman, Joint Chiefs of Staff, and those which increased the authority of the CINCs and strengthened the operational chains of command.

Special operations legislation was instrumental in focusing attention on one of our most important military capabilities. Recent events have demonstrated the soundness of this legislation and revealed the substantial effort made throughout DOD to implement it. Consequently, great progress has been made in the past 2½ years in realizing the full potential of our special operations, civil affairs and psychological operations forces.

Service leaders are supporting the organization of USSOCOM and its assumption of responsibility for special operations forces and activities. The transition is largely complete and most issues have been resolved. Those issues which remain involve, for the most part, deciding where to divide responsibilities and applicable resources which are shared by the command, national agencies, and the services. Progress continues, and we are confident we shall be able to arrive at mutually acceptable resolutions of the remaining issues.

JOINT MISSION ANALYSIS

The USSOCOM Joint Mission Analysis (JMA) is a major initiative being undertaken in coordination with the services, theater CINCs, and national agencies to analyze theater and national mission area requirements for special operations, psychological operations, and civil affairs forces. The joint mission analysis process began in November 1987 with the drafting of the USSOCOM operational concept. USSOCOM and USSOUTHCOM teams are working together to develop methodologies and scenarios to address the requirements of low intensity conflict, regional contingencies, and global war. This effort will be completed in May 1990. USPACOM joint mission analysis was initiated in December 1988 and will be completed in June 1990. The final report for USEUCOM will be prepared by October 1990. The initial scenario and team organization for USCENTCOM was conducted in early February 1990. The final USCENTCOM report will be prepared by February 1991. The USLANTCOM report will be the final JMA report and will be prepared by April 1991.

Joint mission analysis results will be integrated into the planning, programming, and budgeting system; joint strategic planning system; and joint operations planning execution system and theater plans. We have learned four major lessons in this effort. First, joint mission analysis has facilitated theater low intensity conflict strategy planning in USSOUTHCOM. Second, the JMA process has refined the identification and categorization of special operations issues by functional area by theater. Third, quantifying some areas in special operations, civil affairs, and psychological operations missions is very difficult, such as "what is the contribution of a six-man special operations military training team to a Third World country?" And lastly, the joint mission analysis cannot be accomplished successfully without proactive and dedicated support from each theater. We see the joint mission analysis effort taking approximately two years. The end result will be a complete and detailed validation of SOF requirements in all theaters in low-, mid-, and high-intensity conflicts.

SUMMARY

Our national strategy and international alliances have succeeded in deterring the threat of an East-West confrontation. We now face a changing world. The likelihood of large scale military conflicts is diminishing, and the potential for crises in the Third World and eastern Europe is increasing.

While special operations, psychological operations, and civil affairs forces have unique capabilities which have application across the spectrum of conflict from low to high, they are especially well suited to deal with our rapidly changing world environment. Recent events in Latin America highlight our ability to apply indirect military power through such programs as security assistance, foreign internal defense, and counternarcotics operations (analogous to preventive medicine). At the same time, operation JUST CAUSE highlighted the fact we have the finest direct action surgical strike force in the world. In the same vein, our current rebuilding efforts in Panama have brought out the unique ability of our special forces, PSYOPS, and civil affairs units to lead the rebuilding effort (post surgical recovery).

As we enter a decade of global uncertainty in the 1990's, it is essential to maintain and strengthen U.S. special operations forces. Successful peacetime engagement and conventional deterrence will require forces we can use to support U.S. global interests: training friends and allies to meet anti-democratic threats; counterterrorist operations; countering illegal drug trafficking; executing other missions required to defend U.S. lives, interests, and security; and supporting a credible, effective deterrent that is valid across the spectrum of conflict. This requires highly trained, motivated, and well-equipped mobile forces with the facilities and logistics to train and sustain operations in both present and future environments. To meet these requirements, the United States must continue to give high priority to our special operations, psychological operations, and civil affairs forces. These forces provide our nation a truly diverse mix of military capabilities to deal with the challenges we will face as we enter the 21st century.

PANAMA

Senator INOUYE. Thank you, General LINDSAY.

For several days after the invasion, prime time television carried as lead stories the looting of shops and stores in Panama, and there were numerous people coming on the mike and saying: "Why does not someone stop this?" That is a question I think a lot of Americans were asking. Why did we permit the looting to continue?

General LINDSAY. Sir, General Thurman could answer that much better than I could. My forces that I had committed down there were scattered throughout the country. As he just mentioned, he had the Special Forces out working in a number of areas.

I guess in 20/20 hindsight, as the commander of the PSYOP forces, I might have been able or we might have been able to better anticipate that that could be a problem and perhaps have been prepared for it. But very frankly, the mission suffered in a sense by its own success, because they took down the PDF so rapidly and we were so engaged in taking down forces all over the country that it happened. It is unfortunate it happened.

As I say, General Thurman is better qualified to answer that question than I am.

Senator INOUYE. Well, I thought I would ask you this because you have this task of humanitarian support and nation-building and such.

General LINDSAY. Yes, sir.

Senator INOUYE. I thought law and order was part of the operation.

General LINDSAY. No, sir; not for me. Now, we had people that ran the refugee camps, that sort of thing, and we did have people on the PSYOPS side who put out broadcasts at General Thurman's direction.

INTELLIGENCE

Senator INOUYE. General Thurman recently said that he was flabbergasted—and I am using his word—to find 52,000 stored modern weapons in Panama for a 15,000-man army, tons of explosives, and that we had no prior intelligence of that magnitude of weaponry.

General, you are specifically tasked with the responsibility of formulating and submitting requirements for intelligence support. Is there some weakness in this?

General LINDSAY. Sir, there are two parts to that question. First, as far as the number of weapons in the country, that would be a mission for the theater and for the intelligence forces that support the theater, and that would, of course, fall under General Thurman's arena.

On my side of the house, when it comes to conducting surgical operations, in every case the key is finite intelligence, good intelligence that will permit you to conduct the kind of operations that a surgical or strike-type of operation requires.

[Deleted.]

But it is a function of the overall focus of the military for the past 40 years, where our doctrine has focused at the higher end of conflicts. The air-land battle is great for fighting the Soviets in the plains of Europe; the maritime strategy is great for a deep bluewater strategy.

And because your doctrine drives the way you do business, our intelligence systems have tended to focus at the higher end of the spectrum where HUMINT does not play as significant a role there as it does in the SOF missions.

[Deleted.]

You may recall when [deleted] was left stuck in [deleted] because we sent him in to [deleted]. I need to have that kind of capability.

Senator **Inouye**. What would it take to get that capability?

General **Lindsay**. [Deleted.]

Senator **Inouye**. And this HUMINT, would it be under your command?

General **Lindsay**. [Deleted]. But sir, if you would like to go for the record, later on I can talk to you in more detail on that.

Senator **Inouye**. You have mentioned the helicopters and, as you know, the GAO has recommended that we do away with it. What is your response to that?

General **Lindsay**. Sir, you have to look at this entire issue. First of all, the military—and the Congress was beating them up pretty badly back in the mid-eighties because they would program, but then they would always pull the money out for the infiltration-exfiltration platforms. I am talking now about medium- and deep-range rotary and fixed-wing support.

As a result of prodding from the Congress, in 1985 they did the Special Operations Force airlift study. And they went out and looked at the requirements of all five war-fighting CINC's and what they needed to accomplish their missions in the special ops arena by looking at their war plans.

And to support all five of them, they needed something like 300 airframes or 290, and that was out of the question. So they then came back and relooked it and said, we will look at three CINC's; we will look at CENTCOM, EUCOM, and PACOM.

As a result of that study, they came out with a number, and in terms of medium-range lift, they came out with a need for 51 medium-range penetration helicopters. In terms of penetration—medium is 500 miles; deep in this context is 750 miles. And in terms of deep penetration, they came out with a requirement for 55 aircraft.

In the meantime, because of interest by the Congress in the MH-53 Pave Low, money was put in the program to product, improve, and modernize 41 MH-53 Pave Lows. That process is ongoing right now and will be completed in 2½ to 3 years. So we have money now to modernize 41 Pave Lows.

We have money in the program currently for 34 of the 51 MH-47 Echoes. Technically both of those are medium-range helicopters, range around 450 to 500 miles; that is against a requirement of a total deep and medium of 96. So we do not quite make it; we are 21 short.

But the fact is they cannot accomplish the entire deep mission. Originally we had 55 CV-22's in the program for the deep mission. Now that has been cancelled.

I am now rescrubbing this whole thing to see if there is some way we can do certain of the deep missions with the medium-range helicopter. Intuitively I think we can. What is that number? I would say maybe 25, 30 percent. I do not know. This is intuition.

But we cannot do them all. So what I am suggesting is this. The GAO report does not say scratch the whole MH-47 Echo Program. They say cut it from 51 to 17. My answer to that would be I do not think we ought to do anything rash. If we fix the program at 17, it drives the cost to $19 million an aircraft and that is awfully expensive.

What I would suggest we do is this. Let us work the JMA. Let us keep the line open, and I have had my programmers look at this, and I think we can do this without too much difficulty. And let us complete the joint mission analysis we are working with each of the unified commands. And when we complete that JMA, we will know what the requirement is.

Very likely it may not be 51. But I am almost certain it will be more than 17, and I think that is the way we ought to approach that one.

Senator INOUYE. You just mentioned the Osprey. As Commander of the Special Forces, would the Osprey have made a difference in Operation Just Cause?

General LINDSAY. I had not really thought about that. The thing the Osprey, or something like it, gives me is an agility that I cannot get with a rotary wing aircraft. Essentially, tilt-rotor technology gives you the speed of a fixed-wing aircraft, and it gives you an ability to infiltrate and, more importantly in my case, exfiltrate forces. That is the significance of that capability.

The Secretary was faced with some very tough decisions. He made that decision based on affordability. I was able to articulate my case to him and to Secretary Atwood and the Defense Resources Board. They looked at the big picture and said that we just cannot afford that.

I am now looking at how we can pick up, make up the difference, because at this point in time I still have some people who [deleted].

Senator INOUYE. So when you articulated your views, you articulated your support, I gather?

General LINDSAY. Yes; that is correct.

Senator INOUYE. This is an area of major controversy, as you know——

General LINDSAY. Yes; I am aware.

Senator INOUYE [continuing]. Between the Congress and the Department of Defense. We realize that the Osprey may be a bit more expensive than the helicopter, but sometimes, if it means saving lives, that should be our primary concern, and the mission itself.

But given a choice, you would take the Osprey, will you not?

General LINDSAY. Yes, sir; definitely, if I could afford it. [Aside to professional staff member.]

Senator INOUYE. I am sorry Senator Stevens is not here. It would have pleased him a lot. Give him the message, please.

I understand that your command is buying six mobile intelligence vans, known as IVAN's. Why do you need this?

General LINDSAY. They are in the program right now for 1993-97. And it is interesting you ask that question. As you might imagine, when you prepare for these things I have books and books back here that I will not go to of questions I might be prepared for. And ironically, the other day I said: What do we need that thing for? And I got an answer and I cannot remember what it is now, so I will have to submit that for the record.

It is in the 1993 program, but I will have to give you an answer for the record.

[The information follows:]

Among the more important intelligence accomplishments of USSOCOM since its April 1987 activation, has been the completion of a worldwide SOF intelligence architecture, under the umbrella of the Theater Intelligence Architecture Program (TIAP). [Deleted.] The SOF Intelligence Van (IVAN) is a tactical program initiative specifically designed to correct these deficiencies. [Deleted.]

Each USSOCOM component has generated or validated the requirement for this capability. The Air Force Component to USSOCOM, AFSOC, already has an IVAN program underway, with the first of six systems to be delivered during March, 1990. Under the USSOCOM effort, SOF IVANS would be provided to the Navy Component, NAVSOC, and the Army Component, USASOC. The Air Force IVANS would be upgraded to ensure compatibility and interoperability.

The SOF IVAN program responds to critical shortfalls in SOF intelligence requirements. Fully interoperable Service-wide, this deployable capability will provide SOF with the ability to receive, process and transmit intelligence information to and among SOF elements, conventional forces and national intelligence systems.

Senator INOUYE. No, my question was, Is it not redundant, because you have other equipment there?

General LINDSAY. My J–2, Col. Mike Pheneger, insists it is not redundant. In fact, that was the basis of my question. He has a unique challenge. As I mentioned earlier, most of our intel systems are focused on the higher end of the conflict spectrum. We now are working very hard with the five war-fighting CINC's to build architectures that support things at the lower end of the conflict spectrum. And the IVAN is one of those.

I may have something with me on that. I will look and see. I do not like to be a mouthpiece for the staff, though. [Laughter.]

Senator INOUYE. Well, we are all a mouthpiece for the staff here. [Laughter.]

They prepare my questions that I ask you. So this is staff talking to staff. [Laughter.]

STRAINED RELATIONS

You have a very difficult job because, as you indicated, you have not just Army people under your command, but everything else. I am told that the training and budgeting authority provided to you under MFP–11 has increased the Command's autonomy, but may have unintentionally strained your relations with the Air Force. Is that correct?

General LINDSAY. With the Air Force you say, sir?

Senator INOUYE. Yes.

General LINDSAY. Well, any time you change the way you do business in a bureaucracy there is going to be a little friction developed. And candidly, over time we have had differences of opinion with all the services.

But to address that, it was necessary to work out memorandums of understanding, memorandums of agreement, with each of the three services. And we have worked very hard on that and we are still working on it, and we have just about completed it.

With one exception that has to do with funding for Reserve components, we have 100-percent agreement with the Army. We have just concluded an agreement with the Navy. We had a difference with them over the flow of funds. We have resolved that. So the memorandums of understanding with the Army and the Navy should be signed within the next week or so.

In fact, I am going to see General Welch this afternoon to talk about the memorandum we are working with the Air Force, because we do not have a major difference of opinion. In fact, within the air staff there are some differences on training responsibilities. That is not a war-stopper. We can work that and, between General Welch and General Johnston and me, we will work that out.

Senator INOUYE. General, I will be submitting several questions, in fact a couple of dozen of them, relating to complaints we have received from personnel saying that Special Operations is a dead-end thing, promotions are not too often made, and some of those with technical skills are becoming burdened with administrative tasks. I will also be asking questions on morale problems.

For example, I am disturbed to learn there is some dissatisfaction among senior enlisted personnel, who claim that promotions are not as good as they are in the Air Force.

I will also be asking questions about pilots being trained by civilian companies, and we just wanted to know why—also your portable radio program, and the Talon II aircraft. I just wanted to give you a flavor of some of the questions I will be submitting to you.

General LINDSAY. Sir, if I might I would like to respond on the promotion issue.

Senator INOUYE. Yes.

General LINDSAY. As you know, one of the charters in the law was that we would monitor promotions in the services. This is the first time that has ever been done for a unified command. It was done, it was put in the law, as you know, because of the perception that people in the Special Ops community were not getting a fair shake when it came to going to—selection for school or promotions, that sort of thing.

I monitor that very closely. Now, there may be some exceptions and if we can isolate, if whoever talked to your staff can isolate them for me, we will look into it. But I can tell you across the board that the people in the SOF community promotionwise and school selectionwise are doing far better than the average.

For instance, an Army E-7 list came out yesterday. The Special Ops selection rate to E-7, which is sergeant first class, was in the 70-, 75-percent rate first time considered, and for the rest of the Army it was down around 20 percent or less.

I am seeing the Navy does very well. There may be within the Air Force some isolated specialty we may have a problem with, and if so, I will get into that.

TALON II

Concerning the Talon II, as you know we have had some problems with the radar in the past. We are working that. We are expecting the first flight of the Talon II to take place later this month or early next month, and we are hoping for the first delivery of an aircraft to an Air Force component for testing in October of this year.

DEPLOYMENT

Senator INOUYE. I understand that your command has made over 500 deployments in 59 countries since 1987?

General LINDSAY. Yes; I think it is even higher than that now. These are deployments in support of the five war-fighting CINC's. About 40 percent of those are in support of their exercise programs.

If you look at them closely, I guess probably 7 to 10 percent of them would be mobile training teams in the drug arena. We have teams in [deleted] we have teams in [deleted]. I cannot recall the exact percentage, but security assistance is another area we work.

But yes, it is well over 500 teams in 59 different nations. And as a matter of fact, that is increasing.

Senator INOUYE. Let us see now, how much use do you have for women in your force?

General LINDSAY. In the Army, in Civil Affairs and PSYOPS we have—I cannot give you a percentage, but there are a significant number of MOS' that are open for women. In the Navy, in the SEAL community, we have no females assigned. In the Air Force, we have the same requirements or the same opportunity for females to serve as the rest of the Air Force.

I have not, to my knowledge anyway, had any significant issues brought to my attention relating to morale or any problems with females in the command.

As you know, I was quoted by a number of sources as a result of my testimony before the Senate Armed Services Committee on this issue, and it all centered around Captain Bray, the MP captain in Panama, and people were trying to equate that to infantry in combat. And to explain the difference, I pointed out that in the infantry and armor the mission is to close with and destroy the enemy, and no one knows that, sir, better than you; and in the rest of the combat service support branches, the mission basically is to accomplish your mission and, if you are attacked, to defend yourself.

And there is a vast difference between defending oneself or, as your regimental combat team did in Italy, attack and destroy the enemy.

Senator INOUYE. What role would women play in reconnaissance and infiltration?

General LINDSAY. We are getting into an area, sir, that when I talk about compartmented things we might want to talk about, but I would rather not in open session talk about that.

Senator INOUYE. OK. I did not realize women were compartmented. [Laughter.]

General LINDSAY. I commented the other day when I was asked this question, this is not a macho thing to me. I participate in triathlons and I get beat routinely by a lot of females.

Senator INOUYE. We have been advised that Special Operations Forces have been involved in joint activities with the South Africans; is that correct?

General LINDSAY. Not that I am aware of, sir. I will come back for the record to verify that, but to my knowledge that has not been the case.

[The information follows:]

United States policy precludes U.S. forces conducting training with the South African military. In compliance with this policy, no SOF units have conducted training with South African forces.

MEDITERRANEAN AND MIDDLE EAST

Senator **Inouye**. What progress are you having in your efforts to establish a forward Special Operations base in the Mediterranean and the Middle East?

General **Lindsay**. That is a good question. We have right now one forward deployed ground-based team in MacRahanish, Scotland. We also have had one team, a platoon, that has deployed routinely with the Sixth Fleet in the Mediterranean.

During the evacuation of Beirut and the Embassy and some other things that have happened in the Mediterranean, it became apparent to Admiral Howe, the commander in Naples, that we needed a greater SEAL presence in the Med. Now, we have been working some time on trying to get a forward base for a forward deployed element in [deleted]. I have made two visits over there in that regard.

[Deleted.] There is some concern about basing Special Operating Forces there.

We are now working with General Galvin and Admiral Howe to locate another base. In the meantime, we are keeping [deleted] afloat with the Sixth Fleet in the Mediterranean. We are deploying the [deleted] as a matter of fact, the end of this month.

But we are working on trying to establish a shore-based presence somewhere in the Mediterranean.

Senator **Inouye**. Your command is the action force. Do you have ease or difficulty in recruiting and retaining men and women?

General **Lindsay**. Sir, at this point in time we have had no problem whatsoever. I have been concerned about it because the key to success in this business is to maintain a relatively small, elite force, and if you get too big you lose some of the selectivity and I do not want that to happen.

So it is obvious that the size of the military overall is going to draw down somewhat over the next few years, and I have been concerned as to whether we could maintain the quality of the force we have now as the military overall draws down.

I have met with the people in the recruiting business to talk to that issue. They have done a number of analyses on it, and the message I am getting back is we can maintain that quality, because as people see the nature of the threat changing, there is great interest in getting into the business we are in, and we are going to attract some people we might not have attracted previously.

Also, as people look at promotion selection rates and school selection rates and see that we are doing as well as we are, we are generating a lot more interest. A lot of people in the past did not want to get in this business because it was a dead end. That perception is changing.

Senator **Inouye**. Well, once again I thank you very much and I wish to, on behalf of the committee, commend you and the men and women of your Command for the great job you did in the operation in Panama.

General **Lindsay**. Thank you, sir.

Senator **Inouye**. I can assure you that we stand ready to be of every assistance, and there are several members here that would like to present you with the Osprey. I am certain you will not object to that, sir.

ADDITIONAL COMMITTEE QUESTIONS

We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing but were submitted to the Department subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR INOUYE

RESEARCH AND DEVELOPMENT

Question: General Lindsay, Special Operations Command is about mid-way through a comprehensive analysis of its world-wide requirements -- equipment, force and structure. This is the "Joint Mission Analysis." This analysis will not be done until about 1 1/2 years from now. The conclusions could alter the previous SOF acquisition master plans developed by the separate services. Thus, the acquisition requests -- R&D/procurement -- for FY 91 are tentative. Approval of the full requests -- such as 17 MH-47 helicopters -- might be premature and costly. General, the congressional process cannot wait 18 months from now to act on the FY 91 budget which might contain equipment and R&D funding not necessary when you redefine your requirements. When can you inform us this year as to the minimum funding levels you need to maintain your options, but prevent premature, costly appropriations?

Answer: While the Command's "Joint Mission Analysis" is not yet complete, sufficient data is available to confirm that the FY 91 acquisition requests are not tentative. Completed analyses of two theaters of operation not only substantiates the requirements documented in the 1986 SOF Airlift Study, but identifies additional requirements in the areas of low intensity conflict, counter-narcotics and training. As a result, the FY 91 budget request represents the minimum funding level needed to sustain currently approved programs, but is insufficient to meet recently identified additional requirements.

POLICE TRAINING AUTHORITY

Question: How do you reconcile the mandate of Special Operations Forces to conduct the training of police forces with the prohibition of police training contained in section 660 of the Foreign Assistance Act?

Answer: First, training of indigenous military units is a fundamental role of the Special Forces; such training is provided as a means of utilizing indigenous forces as resources to achieve specific U.S. operational goals.

Second, there is no absolute prohibition against training police forces. There is a prohibition against spending security assistance funds to conduct such training unless it fits one of several specified exceptions recognized by the law.

In Panama, the training of police forces is being done as part of an ongoing military operation, "PROMOTE LIBERTY," and, as such, it is paid for out of Operational and Maintenance (O&M) funds. So, there seems no doubt that it is legally permissible.

Beyond that, it makes good sense. The general prohibition on spending security assistance funds for police training expresses the Congress's concern over the training of forces which were, or became, the tools of repressive governments. In Panama, we are trying to assist in the rebuilding of a country in support of a democratically elected government. Ensuring the proper retraining of the police forces is one important, and entirely appropriate, way of providing this support.

Question: How do you ensure that none of the funds made available through the Foreign Assistance Act or the local currencies generated under the Act, are used to support police training?

Answer: USCINCSOC has worldwide Security Assistance support responsibilities. Theater CINCs are responsible for specific Security Assistance objective requirements which make use of the funds made available through the Foreign Assistance Act. When USCINCSOC receives a tasking to support a regional CINC, the validity of a tasking has already been established as the tasking passed through Secretary of State, Secretary of Defense, and the Defense Security Assistance Agency. Therefore USCINCSOC does not validate policy but instead ensures that a tasking has been validated through all levels of command before a tasking is supported.

PANAMA INVASION

Question: General Lindsay, I share our nation's admiration for the way in which our forces were able to swiftly and effectively meet the challenge in Panama. But as a war veteran myself, I know that even in the best of operations, there are lessons which can be learned -- improvements made in the way we undertake our missions.

-- To what do you attribute the high failure rates reported in the High Frequency (HF) radios used by our forces in Panama? What steps are being taken to correct the problem?

Answer: The Joint Special Operations Task Force had 25 HF nets. These nets were used to enter the Defense Communications System for air-to-ground communications links as backups to UHF tactical satellite systems, and to support Psychological and Civil Affairs operations. None of the Special Operations Forces in Panama have reported high failure rates in HF radios used in Panama. The only problems experienced using the HF systems were those associated with the normal propagation characteristics of high frequency radio transmissions. Further investigation of this issue by the Joint Task Force/J6 also revealed that there was no indication throughout the operation of any significant problems with high failure rates for HF communications used by forces in Panama. The most extensive use of HF by conventional forces was employed by Military Intelligence (MI) units which used their GOLDWING HF system. The reliability of this system was exceptional throughout the operation and provided MI units with an outstanding communications means.

Question: How did the lack of in-flight refueling for the HC-130 tankers effect your operational flexibility?

Answer: The lack of an in-flight refueling (IFR) capability for the HC-130 tankers affected our operational flexibility in several ways. With IFR, three aircraft (instead of the seven used) could have done the entire deployment phase. This reduction in required aircraft would have removed the need for HC-130s from the 1550th Combat Crew Training Wing to augment the 1st Special Operations Wing. As the 1550th aircraft are almost exclusively used for training, their cross-country flight from Kirtland AFB, New Mexico, to Hurlburt Field, Florida, created a non-standard signature resulting in operational security concerns. In addition, the inability to in-flight refuel limited the amount of time the tankers could spend in their air refueling orbits. Shuttling back-and-forth from the orbit area for refueling at Howard AFB, Panama, caused delays in helicopter refueling, and congestion and aircraft sequencing problems at the airfield. Lastly, the need to land for refueling limited the number of available alternate recovery locations had Howard AFB been closed for any reason and greatly reduced the time-on-station the aircraft could have dedicated to combat recovery support.

Question: What is your timetable for retrofitting your HC-130s with air-refueling capability?

Answer: Eventually, it is intended to modify all HC-130s with the Universal Air Refueling Receptacles Slipway Installation (UARRSI). This mod allows the HC-130s to be refueled by KC-10 and KC-135 type aircraft. Four HC-130s assigned to the 9th SOS are the highest priority for the UARRSI mod because of their real-world operational tasking. Those aircraft will be modified in the FY 90-91 timeframe with available special purpose funds. A Special Operations Decision Package (SODP) has been developed for funding under MFP-11 which calls for UARRSI modification of 23 aircraft: two in FY92, 93 and 94; six in FY95 and 96, and five in FY97. Funding or mod scheduling for the remaining four HC-130s have not yet been determined.

SPECIAL OPERATIONS FORCES ROLES

Question: General Lindsay, I understand that Special Operations Forces began this operation as the first combat force to be engaged. Can you describe the composition of that force, and discuss your evaluation of the equipment used. I understand that you lost a couple of helicopters. What kind of helicopters were they? What equipment problems did you have, and how would you evaluate your communications. Lastly, can you describe how you related to the conventional forces involved in the operation that followed you in?

Answer: This operation was based around a simultaneous surprise strike by all participating forces at the designated H-hour: 0100 hours in Panama. This operation involved virtually every type of force assigned to USSOCOM. Specifically, US Army Rangers, supported by Civil Affairs and Psychological Operations forces, Air Force Gunships, and Special Ops qualified transports, seized the Torrijos/Tocumen Airport and Rio Hato airfield. Simultaneously, US Navy Special Boat units and Sea-Air-Land (SEAL) personnel secured Paitilla Airport, sank a Panamanian Patrol Boat, and performed other missions. US Army Special Forces Operational Detachments prepared the way by reconnaissance of key objectives and interdicted a PDF reinforcing convoy at the Pacora River bridge. All were supported by Special Operations air assets like the MH-60G Pave

Hawk, the UH-60 Blackhawk, the MH-47 Chinook and the AC-130 Specter gunship which provided decisive direct fire support, and numerous conventional aircraft. All personnel and equipment worked as planned. In fact, this was the first real shake-down of the MH-53 J-model and the modified version of the MC-130E Combat Talon. Both performed better than expected and it should be noted that reliability, in general, was excellent. Of the 148 SOF controlled aircraft departures from the Continental U.S., no delays and only a single air abort were encountered. The air abort returned for a spare aircraft and rejoined his formation in time to complete the mission! Unfortunately, we lost three helicopters from hostile action and one from foreign object damage. All were H-6 model aircraft and lost during the first 24 hours. Two pilots were killed in one incident but all other crews were successfully recovered. A mission of this complexity is heavily dependent upon communications. SOF communications were excellent from the start and continued that way throughout the operation. With virtually every type of comm gear used, the overall lesson learned is that some older models need replacement with state of the art and the soldier in the field needs the absolutely lightest piece of equipment we can provide that gets the job done. Lastly, our relationship with the conventional force was the best I have ever seen. From the outset, planning, target analysis, deconfliction, and overall mission coordination was accomplished in a supportive, everything out on the table manner. Likewise, actual execution followed this pattern with forces supportive of one another where needed. For example, the Ranger force at Torrijos/Tocumen Airport came under the command of the 82nd Division commander when he airdropped into the airfield and certain conventional helicopters were prepared to support SOF operations when needed. This continued throughout the operation and directly resulted in the rapid and successful termination of military operations. As an example of this cooperation, special operations forces and conventional mechanized forces from the Army and Marines conducted operations throughout Panama City. This was a key reason for General Noriega to seek asylum at the Vatican Embassy.

SPECIAL OPERATIONS EQUIPMENT

Question: General Lindsay, I understand that the Special Operations Command is buying 6 mobile intelligence vans known as "IVAN." Upgrades to that system currently are being made. Why do you need this system when you already possess the EC-130 aircraft capable of providing ECM and electronic signals for psychological operations and combat support? Why is IVAN not a redundant capability?

Answer: The EC-130 is the airborne platform for both psychological and electronic warfare. All airframes are assigned to the Pennsylvania Air National Guard (ANG). Four of these airframes are specifically configured to support psychological operations (PSYOPS) missions, and accordingly support USSOCOM. Four airframes are dedicated to the COMFY LEVI mission and are not operationally controlled by USSOCOM. The PSYOPS capability is referred to as VOLANT SOLO, which is equipped to receive, analyze and transmit radio and TV electronic media signals. COMFY LEVI is an airborne collection asset designed to provide communications intelligence (COMINT) support.

USSOCOM's Intelligence Van (IVAN) initiative reflects no capabilities inherent to either VOLANT SOLO or COMFY LEVI. The IVAN is a tactical program initiative specifically designed to provide Near Real-Time (NRT) intelligence in support of deployed joint Special Operations Forces (SOF).

[Deleted]

The IVAN is not a redundant capability since no such capability currently exists. Each USSOCOM component has generated or validated the requirement for this capability. The Air Force Component to USSOCOM, AFSOC, already has an IVAN program underway, with the first of six systems to be delivered during March 1990. Under the USSOCOM effort, SOF IVANS would be provided to the Navy Component, NAVSOC, and the Army Component, USASOC. The Air Force IVANS would be upgraded to ensure compatibility and interoperability.

Question: What is the cost of each IVAN truck, including the current upgrade modifications?

Answer: Although USSOCOM's IVAN program initiative is a joint requirement, the Air Force component to USSOCOM, AFSOC, already has an IVAN effort underway, with the first of six systems to be delivered during March, 1990. Unit production cost for these six 23AF IVANs, as currently configured and factoring in RDT&E, is approximately $900K per IVAN. Planned Air Force improvements are expected to cost $750K per IVAN, for a total unit cost of $1.65M.

SOCOM RELATION WITH MAC

Question: General Lindsay, I am told that the training and budgeting authority provided to SOCOM under MFP-11 has increased the command's autonomy, but may have unintentionally strained your relations with elements of the Air Force. What is SOCOM's relationship with the Military Airlift Command?

Answer: Relationships with Military Airlift Command (MAC) are based on USSOCOM and Service responsibilities and functions as dictated by law and various DoD directives. The USSOCOM air component, Air Force Special Operations Command (AFSOC), is 23d Air Force, a Numbered Air Force of MAC. For AFSOC to function as a unified command component and fulfill Service responsibilities, manpower authorizations approximating a major command are required. Until this increase occurs, augmentation from HQ MAC in various functional areas, is necessary.

Currently, a joint effort is being developed to investigate making AFSOC/23 AF an Air Force major command. Initial analysis indicates this will provide centralized control and direction, eliminate layered levels of command and oversight, provide "4-star" advocacy through the Chief of Staff of the Air Force, and reinstitutionalize Special Air Warfare in the Air Force.

LINKAGE TO AIR FORCE AND MAC

Question: Should SOCOM remain attached to the Air Force? Are you concerned you would lose a strong service advocate if you were not under a MAC 4-star?

Answer: Currently, a joint effort is being developed to investigate making AFSOC/23 AF an Air Force major command. Initial analysis indicates this will provide centralized control and direction, eliminate layered levels of command and oversight, provide "4-star" advocacy through the Chief of Staff of the Air Force, and reinstutionalize Special Air Warfare in the Air Force.

SOCOM'S RELATIONSHIP WITH THE AIR FORCE

Question: What are the reasons behind the problems that exist in the budget process between MAC and Air Force Special Operations Command?

Answer: The Air Force Special Operations Command does not have a comptroller staff; therefore, a budget office does not exist. This has presented a problem in developing the FY92-FY93 budget estimate submission. An agreement exists between the MAC Comptroller and the USSOCOM Comptroller. MAC, in recognition of no Air Force Special Operations Command comptroller staff, is providing comptroller support to Air Force Special Operations Command to meet budget requirements for MFP11.

LINKAGE TO MAC

Question: What kind of relationship is being developed regarding the SOF assets with MAC?

Answer: USSOCOM and the Air Force continue to have mutually balanced requirements and responsibilities. To avoid duplication of effort, we have agreed to a division of responsibilities in developing USSOCOM and Air Force program objectives. While the ultimate responsibility for Air Force Special Operations Forces lies with USSOCOM, the successful execution of programs depends on Service expertise and support. MAC augments the functional areas where 23 AF is not sufficiently manned to perform all functions of an Air Force major command. Considering the proposition to establish AFSOC as an Air Force major command, the reliance on MAC for assistance and support to 23 AF will diminish as we progress through a designed transition period.

UTILIZATION OF SPECIAL OPERATIONS FORCES

Question: General Lindsay, I understand from your testimony that since April, 1987, USSOCOM's forces have made over 500 deployments to 59 countries. Could you characterize these deployments?

Answer: The overseas deployments of special operations, civil affairs, and psychological operations forces generally fall into six operational categories. DELETED of these deployments have been for security assistance.

have been as part of major joint exercises. have been to participate in what we call regional combined training. This third category includes our participation in all of the regionally sponsored training programs with other countries, such as Deployments for Training in USSOUTHCOM, Joint Combined Exchange Training in USEUCOM, and the BADGE-series of exercises in USPACOM. DELETED of the deployments have been made to conduct unilateral training, such as naval gunfire training in Puerto Rico and jungle operations training in Panama. DELETED of our deployments have been for counter-drug support; this percentage is increasing steadily. The majority of our deployments, DELETED have been in the category of operational support. This last category includes deployments which fulfill our responsibility to provide operational forces to the regional unified commands. Examples are naval special warfare deployments aboard the fleets at sea and contingency force deployments, such as past operations in the Persian Gulf, disaster relief after hurricane HUGO, search and recovery of Congressman Leland's crash site, and Operation JUST CAUSE.

Question: What portion of the costs associated with the training and support of foreign military forces is reimbursed? What is the dollar value of these reimbursements?

Answer: Funding for the training and support of foreign military forces is provided through security assistance. Overseas deployments of Special Operation, Civil Affairs, and Psychological Operation Forces since April 1987 for security assistance were 100% funded through the Security Assistance Program.

USSOCOM support associated with the training and support of foreign military forces in Fiscal Year 1989 was $376,000 for fourteen mobile training team deployments.

Question: Please provide a list of all countries with a GNP exceeding $2,349 that receive training and benefits through Special Operations Command. Include the dollar value of that training and associated benefits.

Answer: Of the 59 countries that USSOCOM forces deployed to, 13 countries have a GNP exceeding $2,349 per capita. The following identifies the countries and operational category:

Country	Category
Australia	Exchange Training
Bahrain	Operational Support
Belgium	Exchange Training
Canada	Exchange Training
Denmark	Exchange Training
W. Germany	Exchange Training
Hong Kong	Exchange Training
Italy	Exchange Training
Norway	Exchange Training
Spain	Exchange Training
Puerto Rico	Operational Support
United Kingdom	Operational Support

Due to the operational category of the deployments for the listed countries, the major benefit derived from these deployments are to USSOCOM and the interests of the United States. Any benefit to the host nation would be a secondary benefit. Not all of these deployments were USSOCOM funded. Dollar value of training received and associated benefits can not be determined by USSOCOM. Theater CINCs and/or the State Department may be able to provide the costs and benefits that host countries derive from these deployments.

ADDITIONAL PERSONNEL REQUEST

Question: General Lindsay, I understand that you are requesting that the Administration add 70 additional manned slots for the Special Operations GHQ in your FY 1992 request. Will you be making this request for additional personnel?

Answer: Yes. In fact, the request for these additional personnel was made last year. A thorough analysis of the command's request was conducted by the OSD, JCS and Service staffs, resulting in the approval of 77 positions for FY 1991 to support the command's Special Operations materiel acquisition responsibilities.

Question: What functions are these additional 70 people to perform?

Answer: The positions will be in support of head of agency for acquisition responsibilities assigned to USSOCOM in 1989. The functions to be supported by this manning are: Engineering, Procurement, RDT&E, Program Management, Internal Review/Oversight, a matrixed administrative staff, and senior management.

NIGHT OPERATIONS

Question: What can you conclude about the value of operating at night, and particularly, about our capability to operate at night as a force multiplier against an adversary not used to operating at night? We are starting to operate at night regularly. Combat Talon aircraft operate at night. The Delta force is training to operate at night. Our F-117's operate at night. I am told that at Nellis Air Force Base in Nevada, the first truly night Red Flag exercise was conducted this past January. Are we prepared, then, to fight in such contingencies primarily at night? Is that our current doctrine?

Answer: The capability to operate effectively at night as a force multiplier is a distinct advantage for Special Operations Forces (SOF). Characteristics of special operations doctrine rely on surprise and frequently employ deception for success. The achievement of surprise and deception is a principal talent of SOF. This is accomplished by exploiting indirect approaches and doing the unexpected. To develop and maintain these skills, Special Operations Forces train and are stressed under conditions resembling the operational environment in which they intend to employ. For example, to exercise surprise and deception, SOF may employ the tactic of infiltrating by night, using aircraft, high altitude low opening (HALO) parachuting, combat swimming or other specialized techniques. Night operations remain an increasingly important role in current SOF doctrine. Technological advances and equipment improvements continue to enhance the capabilities of night operations. Special Operations Forces, both ground and air, have for years conducted extensive night training and contingency exercises successfully in all types of environmental conditions and terrain.

PLANS FOR EXPANDED RESEARCH AND DEVELOPMENT

Question: General Lindsay, your statutory mandate provided that one of your functions is to: "develop and acquire special operations peculiar equipment." My staff tells me you are planning a new entity, a "Special Operations Research and Development Acquisition Center", and according it a very high priority, and that you plan to work with the Services laboratories, DARPA, DOE and others. What specifically are your plans in the R&D area and how much are you requesting in FY91 and in the out-years for this function?

Answer: The Command intends to take the lead in RDT&E of SO-peculiar equipment. The Special Operations Research, Development, and Acquisition Center (SORDAC) is the organization that will set policy and execute the Command's mission to develop and acquire SO-peculiar equipment. In FY91 the Command requires $207M RDT&E. Projects include upgrade of the AC-130U, MC-130H Combat Talon II Integrated Defensive Avionics Systems (IDAS), developmental improvements to the MH-60K and MH-47E, SOF Aircrew Training System, Automated Mission Planning System, Joint Advanced Special Operations Radio System (JASORS), Special Warfare Combatant Craft, and the Advanced SEAL Delivery Vehicle. Other projects in the areas of SOF infiltration and exfiltration, mobility, communications, PSYOPS, munitions, survivability and support have also been identified. In the R&D area the Command intends to maintain a level effort of advanced development, full scale engineering and design to meet SOF equipment needs. In order to have an effective acquisition program, the Command requires a Technology Base Program. The Command is building, in the SORDAC, the capability to manage and execute a Technology Base Program and will have the structure in place by FY92. We will begin by executing the modest funds in the Special Operations Special Technology and EOD/LIC programs ($15M) and then hope to build to an eventual $70M 6.1, 6.2, 6.3a Technology Base Program. The majority of these funds will be used for rapid prototyping to demonstrate technology applications capable of meeting SOF needs.

Question: What are a couple of examples of the equipment you need to develop most?

Answer: The Command's top priorities are focused upon means to infiltrate teams into mission areas, to resupply them while in mission areas, and to exfiltrate them. Special Operations Aircraft, SEAL Delivery Vehicles, High Speed Airdrop Containers, and Desert Mobility Vehicles are intended to improve on our current capabilities in those areas. Obtaining reliable, secure communications (JASORS) is also a high priority. Lastly lightening the load carried by our rangers, green berets and SEALs are top research and development priorities.

Question: In the Navy SEAL area, what are the most urgent needs?

Answer: In order of priority, the two most urgent needs are improved maritime infiltration/exfiltration platforms and improved communications. The platforms, in order of planned Fleet introduction are: Patrol Boat Coastal (PBC), a surface craft designed to conduct coastal patrol and interdiction, and to support Naval Special Warfare forces; Mark VIII Mod I SEAL Delivery Vehicle (SDV), a wet submersible craft designed to carry combat SEALs and weapons. It will replace the current Mark VIII and Mark IX craft, which are reaching the end of their useful operational lives; and Advanced SEAL Delivery System (ASDS), a dry submersible craft designed to deliver combat SEALs and weapons against moderate threat and harsh environmental conditions.

Question: Did Panama lead you in any specific directions in this regard?

Answer: A comprehensive analysis of Operation JUST CAUSE has highlighted valuable lessons learned, emphasized the payback from previous SOF RDT&E efforts, and reconfirmed the need for continued development of SOF-related technologies. Specific recommendations from the operation are being evaluated and prioritized before further action is taken. However, no major shifts in the planned direction of SOF technology development are anticipated.

REQUIREMENT FOR 29 ADDITIONAL PEOPLE FOR JSOC

Question: [deleted] How have you arrived at this projected need for FY 1992?

Answer: The need for these additional personnel was derived by projecting the charges in our workload requirements, based on expanding roles/needs in the following areas:

- construction and required maintenance of new operating and training facilities

[deleted]

Question: Would these be civilian or military personnel?

Answer: This growth includes both military and civilian manpower, but is primarily comprised of civilian manpower. We see civilian manpower as a viable option, especially in light of the outlook for shrinkage in military end strength.

EQUIPMENT CAPTURED IN PANAMA BY U.S. FORCES

Question: How much equipment did the U.S. confiscate from the Panamanian Defense Forces during Operation Just Cause? Type? Value?

Answer: Exact quantities, types, and values of material confiscated during Just Cause are still being determined by the Army, specifically the Army Materiel Command. Weapons and their disposition were addressed by General Thurman during his testimony on 8 Mar. About 44,000 weapons were confiscated. Approximately 4,000 of those remain in Panama for rearming of the police function. The rest were shipped to Letterkenny Army Depot, Pennsylvania for inventory, classification, and disposition, which is yet to be decided. These weapons included various types of pistols, rifles, machine guns, mortars, rocket launchers, and armed vehicles. Weapons processing at approximately 1,000 per day is half finished. Completion is expected during mid-June. The munitions, approximately 452 STONS, are being shipped through Sunnypoint, North Carolina, to Letterkenny. The munitions were for the weapons previously indicated and include 75mm, RPG, 89mm, 82mm, 120mm, 60mm, 7.62mm, and tear gas The first shipment is expected to arrive at the end of March. A completion date for the munitions shipment has not been established.

Question: What will happen to this equipment? Will it be sold, placed in the U.S. inventory, or transferred back to the Government of Panama?

Answer: Defense directives and Service regulations will govern disposition of that equipment. One of the first steps will be to exploit technical intelligence and items of Research & Development interest from this materiel. Other considerations will be service related training, historical purposes, distribution to other Federal agencies, museums and Foreign Military Sales (FMS). Any other considerations will be at the discretion of the Secretary of Defense.

SPECIAL FORCES COOPERATION

Question: General Lindsay, please describe the extent of Special Forces cooperation with the following countries and their armed forces: Jordan, Philippines, Korea and Japan?

Answer:

[deleted]

MULTI-NATIONAL COOPERATION

Question: Have U.S. Special Operations forces cooperated in any joint activities with the government of South Africa? If so, in what context? Do you have any future plans to do so? If so, please describe.

Answer: United States policy precludes U.S. forces conducting training with the South African military. In compliance with this policy, no SOF units have conducted training with South African forces, nor are there plans to do so.

MULTI-NATIONAL COOPERATION, MEDITERRANEAN BASING

Question: What progress are you having in establishing a forward special operations base along the Mediterranean littoral and the Middle East?

Answer: Establishing an operating base in support of ACE Southern Region has been a long standing priority of this command, CINCUSNAVEUR, and COMSOCEUR. [deleted]

23RD AF EXCLUDED FROM MAC REGULATION 60-2 #1

QUESTION: Why are aircrew belonging to the 23rd Air Force, the 89th MAW and 375th AAW denied the protection provided by MAC Regulation 60-2?

ANSWER: Aircrews belonging to the 23rd Air Force, 89th MAW and the 375th AAW are covered by MAC Regulation 60-2 by Vol IV, Vol II and Vol III respectively. Unit commanders are allowed to allocate additional duties among aircrews to enable the unit to perform its mission.

23RD AF EXCLUDED FROM MAC REGULATION 60-2 #2

QUESTION: Can this be justified on the merits?

ANSWER: Air crews in the 23AF, 89MAW and 375AAW are not denied protection under MAC Reg 60-2. Each organization is covered by separate volumes, reflecting their different missions. Because of their small size and peculiar mission the organizations' commanders are allowed to apportion additional duties as required to accomplish the mission.

23RD AF EXCLUDED FROM MAC REGULATION 60-2 #3

QUESTION: Have personnel belonging to these units complained to the base commander about being exempted from regulation 60-2? If so, with what frequency?

ANSWER: No formal complaints have been lodged through the Inspector General system. Informal complaints have been discussed but with no effort to record the frequency.

23RD AF EXCLUDED FROM MAC REGULATION 60-2 #4

QUESTION: Is any action being taken to address these complaints?

ANSWER: HQ MAC is directing the placement of adjutants at units with more than 100 personnel assigned. The adjutants will perform those non-crew duty related administrative functions for the unit. For units having 100 or less people, the commander will still have to apportion the functions among crew personnel. Additionally, HQ MAC has two officers visit flying units periodically to listen to crewmember complaints to take back to HQ MAC for resolution.

PERSONNEL COMPLAINTS

Question: General Lindsay, several personnel problems relating to the Special Forces have come to my attention which I believe warrant your careful consideration. These include: 1) the belief among many in the Force that Special Operations is a dead-end career path and that it is virtually impossible to move out into other Air

Force careers; 2) that individuals with technical skills are becoming increasingly burdened with administrative tasks unrelated to their principal job functions; 3) that commanders provide insufficient time off for those with extended TDY missions, often totaling more than 200 days per year. What can be done to improve the career opportunities within the services for those who have achieved a high level of proficiency in their skill area?

Answer: Expand command and higher level staff opportunities. As special operations forces (SOF) build-up to increase the nation's special operations capability, it is essential to retain highly qualified personnel in the special operations community. However, movement of SOF personnel, outside the SOF arena, will increase as the inventory continues to grow and mature. The opportunity for broader career progression within SOF has been significantly improved since the formulation of this command. For example, the addition of new flying units for the Air Force, an additional Special Forces Group for the Army, and more SEAL platoons for the Navy, have expanded the command opportunity for SOF personnel. Additionally, the establishment of USSOCOM, the stand-up of USASOC headquarters, and the activation of the theater SOCs have also increased SOF assignment opportunities. At the same time, the demand for experienced SOF personnel for assignments within and outside of DOD has continued to increase, thereby broadening the career progression opportunity for SOF personnel in all the Services.

Question: What can be done to lessen the administrative burden currently assigned to aircrews and others with technical skills? Could some of these tasks be transferred to civilian personnel or the paperwork reduced?

Answer: As a retention initiative the Air Force continues to place heavy emphasis on commanders to minimize the use of aircrews for non-flying related additional duties. Where possible, the Air Force has added officer and enlisted administrative support personnel to flying squadrons to relieve aircrews of this burden. Civilian personnel could be used; however, obtaining civilian personnel with the requisite security clearance could be a problem, especially in overseas areas where agreements with host governments give hiring preference to local nationals. Even with qualified civilian personnel, aircrew expertise would still be required for such areas as scheduling and the paperwork associated with pre-mission planning and post-flight data.

Question: Please provide the Committee with the first draft and the final draft of the psychological evaluation and retention survey conducted of aircrews at Hurlburt Field nearly two years ago. I am informed that substantial modifications were made to the original study.

Answer: An initial, limited aircrew survey was conducted during April 1989 - July 1989 by 23rd Air Force and this command to review the concept of employing formal screening methods for special operations flying squadrons. This survey was not a retention study. There have been no modifications to the original survey as it was only an in-house preliminary assessment. Based upon the limited survey, USSOCOM is now validating the results with the units and working with 23rd Air Force in establishing a screening procedure for AF SOF aircrew personnel. The survey procedures were designed to preserve respondent anonymity and confidentiality. Release of the survey results outside this command will compromise our ability to rely on respondent candor as we address the mechanism for an aircrew screening procedure. Additionally, since the results of the survey have not been distributed because of its sensitivity, to do so now would not be in the best interest of the command. A briefing on the results can be provided to the committee or its staff if it is desired.

PILOT RETENTION PROBLEM

Question: General Lindsay, I have received reports of the high morale and esprit de corps which generally characterize our Special Operations Forces. However, I am disturbed to learn of some dissatisfaction among senior enlisted personnel who claim that promotions are not as good as they are Air Force wide. In one squadron recently visited by my staff, I am told that retention among instructor pilots is particularly bad. Is this the truth? Are we failing to provide our pilots with the proper incentives to remain in the Air Force?

Answer: Retention of fixed wing pilots and instructor pilots is a serious concern throughout the Air Force. Some of our squadrons have only six crews and the loss of two or three instructor pilots is devastating. Because instructor pilots are typically the most experienced/senior pilots in a squadron, they are also the most eligible to separate. Likewise, the demand for instructor pilots for airline jobs is typically higher than other pilots because of their experience and qualifications. The retention issue is being worked hard by the Air Force and commanders at all levels. The pilot bonus program, the recent increase in aviation career incentive pay (ACIP) and extensive commander involvement to address pilot irritants are providing greater incentives for pilots to remain in the Air Force. However, until the demand for pilots in the civilian sector subsides, it will be very difficult to compete with the monetary and stability incentives offered by the airlines.

PERSONNEL COMPLAINTS

Question: What criteria are used to evaluate the performance, technical skill level and eligibility for promotion of Special Operations personnel?

Answer: Job performance is the key criteria for evaluating the performance and technical skill level of special operations personnel. Commanders and supervisors evaluate performance and technical skills by using individual skill qualification tests, exercises, special schools, and annual promotion evaluation reports for officer and enlisted personnel. In addition, completion of formal professional military education and progression through command and high level staff assignments are important promotion factors. As part of our legislative responsibility, USSOCOM monitors promotion rates for SOF personnel. Overall, promotion rates for SOF personnel equal or exceed their Service counterparts.

Question: Is there a system in place to handle personnel complaints outside the normal chain of command? Would you support such a system?

Answer: Yes. The Inspector General (IG) system provides an established channel, outside the normal chain of command, to register complaints, including personnel-related problems. This has proven to be an effective check and balance system to ensure that individual complaints receive the proper level of attention and action.

PILOT RETENTION PROBLEM

QUESTION: What are you doing to maximize the utilization of aircrews in their respective aircrew specialties?

ANSWER: HQ USAF has taken the following actions: AFSOF units receive priority manning (100%); established a new AFSC for AFSOF officers which will help identify and track AFSOF resources; converted positions not requiring rated expertise to non-rated specialty codes; identified prior AFSOF officers for return to AFSOF; and coded AFSOF assets to ensure their use in special operations duties.

POST PANAMA RECONSTRUCTION

Question: General Lindsay, it is my understanding that reserve units of the Army's Special Forces have assumed a role in the post-invasion reconstruction of Panama. These units, comprised of doctors, lawyers, engineers, etc., are assisting the civil authorities in their work. How are the Special Forces civil affairs units in Panama being budgeted?

Answer: As a supporting CINC we provide forces to USSOUTHCOM. The Army and USSOUTHCOM are funding the cost of the volunteer civil affair reservists. The Army is covering their cost with Military Pay, Army (MPA) funds. The civil affairs reserves are under Temporary Tour of Active Duty (TTAD) orders. TTAD orders are funded with MPA funds. USSOUTHCOM is funding travel cost, perdiem cost and in country cost with Organizational and Maintenance, Army (OMA) funds. USSOCOM does not have the authority to expend FY90 MFP 11 funds.

Question: What specific activities are these units engaged in?

Answer: Civil Affairs assets deployed were the U.S. Army 96 Civil-Affairs Battalion (an active component unit) and individual reserve component personnel with requisite skills on volunteer basis. These civil affairs assets were formed into a Civil Affairs Task Force (CATF). The CATF working through host nation civil government agencies engaged in civic actions and other nation building programs designed to promote civil-military relationships between U.S. forces, host nation government/forces and host nation civil populace. These civil-military activities included application of the following specialized CA skill areas.

a. Public Safety: Participated in combined staff visits and inspections of local district jails and recommended necessary security upgrades. Assisted in coordinating the police training program for the Panamanian Police Force.

b. Public Health: Prepared assessments of all hospitals, identified major needs (medical supplies, medicines and patient transport). Additionally prepared and recommended a coherent professional medical health plan to the Republic of Panama(ROP).

c. Public Welfare/Humanitarian Assistance: Planned and coordinated a country survey to determine necessary shelters required for the vast numbers of dislocated civilians and the homeless. Coordinated security to safeguard food storage/medical supplies warehouses. Prepared a food distribution plan.

d. Public Works and Utilities: Advised host nation representatives on the organizational structure for the Ministry of Public Works(MOP). Assisted in the evaluation/assessment of numerous electrical systems and sewer/waste water system for the MOP.

e. Public Education: Participated and advised during the assessment of the Panamanian school system. Advised the system is sound but in need of major structural renovation (plumbimg, roofing, electrical, and paint).

f. Civic Action: In coordination with Republic of Panama representatives identified and prioritized numerous projects.

POST-PANAMA RECONSTRUCTION

Question: What is the involvement/coordination of other United States intelligence agencies with the Special Operations civil affairs teams in Panama?

Answer: First of all, Civil Affairs (CA) is an avid consumer of all-source intelligence. For example, current and accurate biographical data on key civil/military leaders help the CA teams advise the new Panamanian government on the political reliability of selected officials for key positions. Intelligence was also used, and continues to be used to provide feedback on current CA activities. These assessments are critical to modifying or terminating CA programs. This information is being provided to the CA-JTF by the USSOUTHCOM J2. The data is fused, all-source intelligence provided by DoD and non-DoD agencies.

Question: Who is responsible for integrating and maintaining final operational control over the host of agencies engaged in civil affairs operations in Panama?

Answer: Final operational control of all agencies engaged in civil affairs operations in Panama is the U.S. Embassy. Coordination of military civil affairs and civic action projects is the responsibility of the Military Support Group which reports to Joint Task Force Panama.

Question: How long will Special Forces civil affairs units remain in Panama?

Answer: There are no "Special Forces civil affairs" units. There are Special Forces units performing, among other missions, civic action projects, and there are active and reserve component Civil Affairs personnel who manage military civic action projects in support of the Embassy reconstruction efforts. A decision was made by the National Command Authorities early on not to mobilize reserve units. Individual reserve volunteers identified by Department of the Army, were prepared and deployed by U.S. Army Special Operations Command, our Army component, at the direction of the Joint Staff. How long these forces will be in Panama is a decision to be made by the National Command Authorities with input from the Commander in Chief, US Southern Command, GEN Thurman. Within USSOCOM, we are studying the roles and missions these forces are performing now that non-DOD assistance and training are available to assist the Panamanian government, with a view to making recommendations to GEN Thurman as to their continued employment or withdrawal.

Question: How are reconstruction tasks assigned to the civil affairs units and are their activities being coordinated through the Panamanian Government and the U.S. Department of State?

Answer: Civil Affairs (CA) personnel are assigned under Joint Task Force-Panama (JTF-PM) and Military Support Group-Panama (MSG-PM) to conduct assessments, coordination and advisory functions. They do not do any reconstruction tasks. Reconstruction tasks are performed by National Contractors, US Military Combat Service Support (CSS) forces and on occasion, CONUS based civilian hired contracted thru United States Agency for International Development (USAID). Military command and control of CA personnel is exercised through United States Commander In Chief, SOUTH (USCINCSO). Coordination with the Republic of Panama (ROP) and American officials is being accomplished through the SOUTHCOM SCJ5, JTF-PM, and the MSG-PM, the structure organized to control military support United States Government (USG) nation building efforts.

Question: Please provide the Committee with copies of the handbooks for the 20-plus Civil Affairs functional specialties, the revised Joint Manual for Civil Affairs (FM41-5), and the new "L" series table of organization and equipment for Civil Affairs units.

Answer: Copies of the published 16 Civil Affairs functional specialties provided. Functional specialty handbooks for Public Safety, Public Welfare, Cultural Affairs and Dislocated Civilians are not in print. Decision made between USAJFKSWCS and TRADOC not to publish handbooks since all the 20 Civil Affairs functional specialties are to be included in a tactics, techniques and procedures manual, FM 41-11. This manual is on the USAJFKSWCS docket to begin development O/A Jun 90. Projected fielding date is 2nd Qtr 92. Copy of FM 41-5 provided. Copy of Civil Affairs "L" series table of organization and equipment provided.

PILOTS TO BE TRAINED BY CIVILIAN COMPANY

Question: General Lindsay, I understand that most of the Military Airlift Command has changed to training systems run by civilian defense contractors and shortly, so too will SOCOM utilizing the Air Force Special Operations Forces Aircrew Training System (SOFATS). What factors led to the decision to use civilian trainers? Is there a deficiency in the military training apparatus which needs fixing?

Answer: The requirement to train Special Operations Forces aircrews to high levels of combat capability imposes demands which cannot be met with current training resources. The 1982 USAF Scientific Advisory Board Summer Study on Airlift and Force Projection underscored the fact that the Air Force did not have the capability to efficiently train SOF aircrews. Currently, SOF training must use outdated practices and technology; SOF-specific aircrew training devices do not exist. The lack of modern training devices results in heavy reliance on aircraft for training. This reliance sacrifices aircraft operational static and flight hours. The shortages of dedicated training personnel and limited training flying hours have a detrimental impact on the amount and quality of training within the current training program.

In May, 1984, HQ USAF directed the replacement of personnel in the simulator maintenance career field with civil service or contract logistics support personnel. With subsequent Air Force decisions to reduce simulator instructor and support authorizations, the contract ATS approach became a logical solution for providing critical training needs. Based on these actions the Military Airlift Command (MAC) examined the requirements for MAC aircrew training systems and made appropriate conversions for the C-130 and C-141 ATS.

Although SOF ATS was not specifically addressed in these earlier studies and decisions, civilian trainers in the SOF ATS is a logical carryover.

QUESTION: What is the projected cost of this training in your FY91 budget estimate?

ANSWER: The FY91 budget estimate includes $1.5M in Operations and Maintenance. It represents $30K in salary for a Contract Administrator and the remainder for the training contract.

Question: What savings do you hope to realize from this change from military to civilian training systems?

Answer: Changing to the civilian training system will result in cost avoidances of $8M per year. This will increase aircraft availability for operational missions by reducing the number of aircraft and training sorties and associated ammunition, fuel and supplies expended in actual flight training. The system has a management information system which includes training documentation, reporting scheduling, identification of requirements, evaluation tracking as well as other features which results in a savings of maintenance and support personnel.

Question: Please provide the Committee with the Air Force and Special Operation Force analyses which led to this decision including a full cost-out of the program.

Answer: The analyses identified the following problems with the current SOF aircrew training: shortage of experienced military training personnel; limited training hours; and a lack of SOF-specific aircrew training devices. The contract civilian SOF aircrew training system (ATS) is a logical solution to overcome these problems and to provide the critical training. Instructors for the SOF ATS will be almost exclusively former SOF crew members. The contract civilians will provide a stable, trained instructor force not subject to military PCS moves and high turnover rates. The SOF-specific training devices will decrease the number of flying hours required to effectively train SOF aircrews. Maximum use of existing government-owned simulators, aircraft parts, and trainer parts has been stressed to reduce the acquisition costs. SOF ATS provides a cost-effective solution to improving aircrew training. It will train over 40 crew positions in 7 different aircraft and it will reduce the actual flying hours required to train our aviators. We estimate that approximately 3000 flying hours per year will become available for operational requirements that previously were allocated to training.

The full cost of the program from FY88-94 follows:

RDT&E:	$190.8M
Procurement:	187.4M
O&M:	28.9M

Question: How will ensure that opening up the Special Operations Forces world to civilian trainers will not lead to a compromise of highly secret special operations tactics and methods?

Answer: The SOF ATS will provide a integrated, combat mission rehearsal center at Hurlburt Field that will be fully operational in 1994. Crews will be able to rehearse specific real-world missions for crew coordination, decision making, situation awareness, and tactics refinement. This top secret facility is isolated from the remaining contractor operated SOF ATS facilities and is designed to meet the strict operational, communications, and additional security requirements dictated by the SOF mission. The contractor will not actively participate in these real-world combat mission rehearsals. They will develop world-wide digital data bases, stored in the facility, to be used when it is necessary for crews to rehearse real world missions. All crews will receive semi-annual training in the use of the mission rehearsal facility - the normal routine will not be broken when a real world mission is rehearsed prior to mission execution. Detailed security plans are being developed by the USSOCOM Director of Intelligence, AFSOC DO/IN, and the SOW security police to ensure operational and communications security will not be compromised. This facility will relieve Special Operations Forces from having to rehearse their missions in the aircraft at a considerably higher risk of compromise and area to be flown by the SOF aircraft.

Question: Will civilian pilots be flying Special Operations military aircraft?

Answer: No.

Question: Please provide the Committee with a list of any former Special Operations personnel which are now engaged in marketing SOF ATS on behalf of General Electric, Loral Defense Systems and Logicon.

Answer: All three contractors were queried with the following answers: (1) Loral Defense Systems has no former SOF crewmembers in their marketing/business development function; (2) Logicon has one individual on a subcontractor team, COMARCO, Mr. J. D. Flynn who markets mini-camps - the SOF mission planning system. It is a matter of interpretation as to whether he is involved in marketing of SOF ATS; and (3) General Electric has one individual, Mr. Ronald J. McDaniel, manager for mission rehearsal/mission support programs, who is involved in marketing/business development and was a former SOF Army officer who participated in Special Operations activities in Southeast Asia.

SOF COMMUNICATIONS

Question: General Lindsay, in your testimony you identify the Joint Advanced Special Operations Radio System (JASORS) as USSOCOM's number one integrated priority list item. The radio appears to have numerous advantages over the Army's SINCGARS system which utilizes older technology.

—Now that the Army has decided to reduce its purchase of the SINCGARS man-portable radio and embark on a new research and development effort, has any effort been made to combine the Army and Special Forces radio procurement program to achieve greater interoperability and maintenance efficiency, at lower per-unit cost?

Answer: Interoperability remains one of our foremost objectives as is satisfying our requirements in the most cost effective manner possible. Our aim in JASORS is so radically different from that of a conventional radio system that a combined program is infeasible. In the process of developing JASORS, we expect to implement technology that may well show the way for the next generation of military radios.

DELAYED ACQUISITION OF THE TALON II AIRCRAFT

Question: General Lindsay, I am aware of the problem that the TALON II aircraft has been having with its new terrain-following radar. What progress has been made in fixing the radar problem?

Answer: The contractor is closing in on resolution of the radar problem and ASD expects to start flight testing for score by the end of March.

Question: When do you anticipate taking delivery of the first TALON II aircraft and will that be before the manufacturer has fixed the radar problem?

Answer: TALON II delivery is scheduled to begin in October 90. The radar problem will be fixed before delivery.

Question: What is the projected cost of the final TALON II buy and how does this compare to the original estimates?

Answer: The projected cost of the final 24 aircraft TALON II buy is $1525.5M in then-year dollars and $976.8M in base-year 1981 dollars. The original estimate for a 10 aircraft program was $457.4M in then-year dollars and $319.8M in 1981 dollars. Cost growth can be attributed to the increase in quantities of aircraft, restructuring of the program to reduce risk, inflation and additional support equipment requirements.

Question: How will you resolve one of the lessons of the Panama mission which was the need for a dedicated TALON radio operator -- a position that will be eliminated with the acquisition of the new TALON II aircraft?

Answer: One goal of the TALON II program is reduced crew workload through cockpit and avionics integration. If this workload reduction is successful, it may be possible to operate the TALON II with a crew of seven, eliminating the radio operator and second navigator positions. The effectiveness of workload reduction is a specific issue to be evaluated during ongoing operational testing. A final decision on TALON II crew manning will not be made until the evaluation is completed.

Question: By eliminating the radio operator and giving his job to the co-pilot, who also has other duties, and by eliminating one of the two navigators in order to consolidate space and keep the Electronic Warfare specialist, are you not concerned that operating this aircraft will place additional pressure and cause additional fatigue on the cockpit crew, thereby raising possible new safety problems? Would not this especially be the case if there is degraded performance due to equipment malfunctions? In other words, does the new system require perfect operation to avoid safety problems and is its design prudent from an operational safety point of view?

Answer: As stated previously, the effectiveness of workload reduction is a specific issue to be evaluated during ongoing operational testing. With regard to equipment malfunctions, considerable redundancy has been incorporated to minimize degraded performance and ensure operational safety. The operational suitability of the design is another specific issue to be evaluated during ongoing operation testing. The above actions will ensure the design is prudent from an operational safety point of view. A final decision on Talon II crew manning and any required design changes will not be made until the evaluation is completed.

EXTENDING FIXED-WING AIRCRAFT CAPABILITY

Question: General Lindsay, after you acquire the new TALON II, will you still have any outstanding requirements for fixed-wing combat aircraft?

Answer: The Combat Talon II procurement will be this Command's last fixed-wing Combat aircraft requirement in the present generation of SOF airborne mobility assets. There is still a critical need for a long-range SOF exfil aircraft, but that is likely to be some type of rotary wing/vertical lift asset unless technology can provide an alternative concept for that mission. Additionally, USSOCOM has begun the process to validate a future SOF aircraft to meet the 21st century threat.

Question: Are you having any difficulty acquiring spare Allison engines for the 30-year old AC-130 Gunship? What is your current inventory and projected need over the remaining life of these aircraft?

Answer: Allison T56-9 engines are no longer being procured for the AC-130A or any other C-130A aircraft. The T56-9 engine is unique to the C/AC-130A and C-130D aircraft. T56-9 engines were last produced in 1955. Allison terminated production on several unique T56-9 engine components in May, 1989. There are sufficient assets on hand to fulfill requirements as identified in the Amended Presidents Budget (APB), dated May, 1989, because of parts purchased prior to the production termination, and cannibalization of long supply assets. (Long supply assets are those that are above computed stock levels, but are not excess at this time). Engine support is anticipated for C-130A aircraft flying hour programs as currently identified in the APB. Current aircraft inventory of all types of C-130A series aircraft is 51 as of December 1989. According to the APB, there will be 30 aircraft for FY90 and FY91, 26 for FY92, 4 for FY93 and 2 (1 DC-130A and 1 NC-130A) for FY94 through FY96. Support has been based on this inventory and phase of the plan. 22 engine overhauls are projected during the FY90 through FY96 period, and support has been planned accordingly. If aircraft retirement is extended, support will not be available because there are no commercial parts vendors available. This engine was never sold commercially. The only current source for many unique parts is the United States Air Force.

Question: Do you have a requirement to make the AC-130 Gunship all-weather capable? Is this technically feasible? If so, what modifications would be required to make the AC-130 Gunship all-weather capable?

Answer: It is best to speak in terms of adverse weather vice all-weather capability. Some adverse weather capability exists on present AC-130A and AC-130H Gunships, which is provided through the use of ground emplaced beacons. The AC-130U, which will be the newest and most technologically advanced gunship, will have an increased adverse weather capability provided with the 105mm gun, because the radar will be able to track the round to impact. This will be the extent of the required and fielded gunship adverse weather capability.

GAO CALLS FOR TERMINATION OF THE MH-47E HELICOPTER BUY

General Lindsay, a recent GAO report concluded that the Army would be wasting over half a billion dollars if it carried out a planned purchase of 34 special operations helicopters. According to the GAO, none of the officials contacted from the Army, the Special Operations Command, or the Office of Intensity Conflicts "could provide any definitive mission-based justification or logical support for the procurement of additional MH-47E aircraft." The GAO recommends terminating the planned procurement, including the $107.5 million already approved for FY 1990.

Question: Why has the Army insisted that the MH-47E meets is needed for long-range operations when the helicopter clearly lacks a long-range capability?

Answer: USSOCOM is unable to speak specifically for the Army. From this Command's perspective, procurement of all 51 MH-47Es is critical, especially in light of the cancellation of the CV-22. The requirement to do long-range exfil exists regardless of whether or not a specific long-range exfil asset is available. There are concepts of operations that are extremely risky but can be planned to allow MH-47Es to complete long-range exfil. Those operations would involve more aircraft to do the job than would be required if, for example, CV-22 were available. The likelihood of mission success is severely decreased and probability of loss of assets is increased, but it would be attempted. SOF missions cannot be planned as one-way kamikaze operations.

Question: Why has the Army not abided by a May, 1987, determination by the Secretary of Defense that its medium-range special operations missions could be met with 17 MH-47E helicopters bought by the Army, and 41 MH-53J helicopters obtained by the Air Force?

Answer: USSOCOM is unable to speak specifically for the Army; however, the argument used above remains germane. In the FY90-94 Program Review the DEPSECDEF decided that the Army would procure an additional 34 MH-47E aircraft (for a total of 51) to support the Special Operations Force, and that the MH-53J aircraft would be returned to the Air Force. Subsequently, the DEPSECDEF decided that the 41 MH-53J aircraft would remain in SOF, along with the 51 MH-47Es, until the 55 CV-22A aircraft were fielded. This decision is the basis for the current DOD policy. USSOCOM acknowledges that a Special Operations Force of 92 medium range rotary-wing aircraft does not match the currently defined requirement for 106 medium/long range vertical lift aircraft; however, these 92 airframes provide an interim capability to do both missions until a long-range exfiltration platform can be fielded. In late 1991, USSOCOM will complete its five theater Joint Mission Analysis and will be able to better articulate total requirements. From initial results, however, the 92 helicopters noted above will not begin to meet medium and long-range exfiltration requirements.

Question: What efforts are you making to identify whether another service aircraft could carry-out the long-range mission?

Answer: At this time, it does not appear that any present service inventory aircraft can complete the long-range exfil mission for SOF. USSOCOM is in the process of validating a Statement of Need for a Future SOF aircraft. Additionally the command is looking at state-of-the-art technologies and anticipated future technologies to support development of that platform. This activity is being conducted in conjunction with our Joint Mission Analysis.

Question: Are you looking into whether any foreign-made helicopters are suitable to fulfill the long-range Special Operations mission requirement? If not, why not?

Answer: No. With present helicopter technology, it is not believed that any helicopter should be used for the long-range SOF exfil mission because of the risk involved; consequently, no helicopter, foreign or domestic, is being considered.

Question: Does the Army intend to enter into any long-lead or production contracts for the additional 34 MH-47E aircraft?

Answer: The Army has approved proceeding with the initial production phase of 11 MH-47Es and 11 MH-60Ks using procurement funds appropriated through FY90. Although Congress expected the Army to procure 16 MH-47E production aircraft with these procurement funds, cancellation of the V-22/CV-22 aircraft and PBD-100 prevented this from happening. An Army decision at Milestone IIIB for full-rate production will be needed before the Program Manager can contract for any of the remaining 39 MH-47Es and 11 MH-60Ks. Milestone IIIB will be conducted 30 days after the MH-47E prototype completes preliminary airworthiness evaluation tests. Only a small amount of the advance procurement funding of $125.9M for both the MH-47E and MH-60K would be put at risk if all 51 MH-47Es are not procured. The Program Manager has taken action to obligate $95M of FY90 advance procurement funding for MH-47E long-lead items for the 34 aircraft not covered by FY90 and prior procurement funds. These funds will cover FLIRs, engines, TF/TA radars and the Integrated Avionics Systems (IAS). Only a small percentage (about 10 to 15 percent) of the $30.6M identified for IAS (wiring and installation costs) could result in loss to the Government.

ADEQUACY OF HUMAN INTELLIGENCE

Question: General Lindsay, you are specifically tasked with the statutory responsibility of formulating and submitting requirements for intelligence support. In looking at our resources, both Humint and imagery and signals intelligence, and given the changing world situation, do we need substantially more emphasis on human intelligence?

Answer: [deleted]

Question: What is the urgency of our need for linguists?
Answer:

[Deleted]

In the operational arena, the most acute need for linguists in Special Operations Forces (SOF) is found in the Army. Army Special Forces (SF), Psychological Operation (PSYOP), and Civil Affairs (CA) personnel have a recognized need for language skills. Currently, Active Component (AC) forces have a requirement for approximately 3200 personnel with varying levels of language proficiency. Roughly 81% of those are SF personnel. As of January 1990, 43% of the total of 3200 personnel requiring language training had received some type of initial acquisition language training. They may not, in all cases, have attained the desired proficiency level, but they have received training.

Proficiency requirements and language orientation is driven by mission letter and OPLAN guidance from the Regional supported CINCs. Units with Foreign Internal Defense (FID) and Unconventional Warfare (UW) missions will inherently have higher proficiency requirements than units tasked to conduct unilateral Direct Action (DA) and Strategic Reconnaissance (SR) missions.

SF units and the John F. Kennedy Special Warfare Center and School (USAJFKSWCS) are conducting initial and sustainment language training in numerous target languages. Traditionally, SF units are better trained in European/Romance languages than the more exotic languages found in Asia and the Middle East. It should be noted that those same European/Romance languages are far simpler to learn.

The United States Army Special Operations Command (USASOC) is working toward a better language trained force and has shown significant progress in FYs 89-90. USAJFKSWCS is continuously reviewing and modifying training to meet the needs of the operational units.

Basically, the urgency of need for linguists, both in HUMINT and in SO, is mission, OPLAN and geographic area (Country) oriented. Currently, USSOCOM is identifying specific language requirements and initiating programs to alleviate our language shortfalls.

QUESTIONS SUBMITTED BY SENATOR BYRD

SPECIAL OPERATIONS ROLES AND MISSIONS

Question: Special Operations Forces played a very important role in the recent Panama operation and received well-deserved praise for the manner in which you carried out your part of this operation. And yet, there was some criticism that several highly specialized units such as the Navy SEALs were used for missions that were more suited for other units such as the Rangers or the Airborne forces. I know it is hard for you to comment freely on a matter as sensitive as this, but do you think it would be better in any future operations of this sort if the task force were made up of units from a few organizations that have trained together and have a more integrated chain-of-command?

Answer: As a matter of fact, our special operations units involved in this operation have trained together extensively and had just completed a highly successful full scale "rehearsal" exercising this plan, to include the integration of the command and control. The planning for this operation had been well worked and revised as necessary to ensure the proper forces were identified for each mission.

QUESTIONS SUBMITTED BY SENATOR HARKIN

SOF COMMUNICATIONS

Question: General Lindsay, in your testimony before the Senate Armed Services Committee on February 8, you referred to the development of more effective man-portable radios as a top priority requirement. What is being done to provide a near term interim capability?

Answer:

[Deleted]

Question: [Deleted]

Answer: Yes, that is correct.

Question: Is there an existing LPI waveform that could be incorporated into existing radios?

Answer:

[Deleted]

Question: Tell me about your major development effort for the Joint Advanced Special Operations Radion System (JASORS). What is the anticipated development cost of this program and when do you anticipate this radio could be fielded?

Answer: JASORS is our major thrust in the [illegible] effort for the SOF team communications. We intend to provide our

[deleted]

JASORS will also possess an unprecedented range of compatibility with existing radio systems allowing it to be employed across the spectrum of SOF missions. We intend to employ the best in proven technology to not only provide these vastly improved capabilities, but to do so with a lighter system than the SOF communicator currently carries in his rucksack. The anticipated development cost of JASORS is $69M and we expect to equip our first unit for initial operational test and evaluation in FY 1995.

Question: Does the Army have any communications capability which could be modified with low probability of intercept/detection waveform for the interim period pending the availability of JASORS?

Answer: Yes, as noted earlier, [deleted] by Army SOF. However, the feasibility of procuring and fielding an interim LPI/LPD capability must be evaluated in light of the full LPI/LPD capability to be provided under the JASORS program.

Question: What about the so-called Special Operation High Frequency Radio (SOHFRAD)? What would be the estimated cost to incorporate LPI/LPD capability into this radio?

Answer: The Army has contracted with Loral Corporation for a limited procurement of their M50B radios under the Special Operations High Frequency Radio (SOHFRAD) program.

[deleted] Even if we had this information regarding the M50B (SOHFRAD), we would still need to examine the feasibility and cost effectiveness of incorporating the ability to receive

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QUESTIONS SUBMITTED BY SENATOR D'AMATO

V-22 OSPREY AIRCRAFT

Question: A January 31, 1990 PHILADELPHIA INQUIRER article states, "Defense Secretary Dick Cheney's decision to cancel the tilt-rotor V-22 Osprey aircraft in the new military budget leaves the nation's elite forces 'struggling' to find an aircraft for high-risk, high-speed missions." General Lindsay states, "I had my day in court more than once...I lost." How do you plan to obtain a plane that meets your requirements of speed, a 750 nautical mile range, quick deployment, and rapid recovery of forces?

Answer: The 1987 SOF Airlift Study identified the lack of long-range SOF infiltration/exfiltration capability as a major shortfall. The CV-22 was to provide that capability. The Command is investigating available and emerging technologies to determine the feasibility of developing a future special operations aircraft to meet these requirements. However, no available alternative to the CV-22 has yet been identified.

Question: Are there plans to modify existing helicopters and transport planes or will you request, at some time in the future, that Special Operations Command go through the research and development stage for an aircraft built specifically for its requirements?

Answer: Existing helicopters and transport planes such as the MH-53, MH-47, MH-60, MC-130 and HC-130 are being modified to meet the changing threat, while taking advantage of emerging technologies to enhance mission effectiveness. That will be an ongoing evolution as funds permit, until follow-on aircraft are fielded. A future SOF aircraft requirement has been identified, and will likely be validated for development, from the ground up, as a Special Operations peculiar asset.

A February 27, 1990 article in the WASHINGTON TIMES states that "according to the General Accounting Office, the Army's plan to buy an extra 34 MH-47E helicopters for special forces...is without a sound mission-based justification."

Question: Could you comment on this GAO report?

Answer: It is a matter of record that USSOCOM did not concur with the GAO recommendation to cancel the 34 additional MH-47E buy. Procurement of all 51 MH-47Es is critical, especially in light of the cancellation of the CV-22. The requirement to do long-range exfil exists regardless of whether or not a specific long-range exfil asset is available. There are concepts of operations that are extremely risky but can be planned to allow MH-47Es to complete long-range exfil. Those operations would involve more aircraft to do the job then would be required if, for example, CV-22 were available. The likelihood of mission success is severely decreased and probability of loss of assets is increased, but it would be attempted. SOF missions cannot be planned as one-way kamikaze operations.

Currently, the V-22 has been tested at a 609 nautical mile range which falls short of your 750 nautical mile requirement.

Question: If current helicopters could be reconfigured for extended range, could the V-22 also be extended to meet your requirement?

Answer: Current helicopters can be configured for extended range, and that action is accomplished when required to meet the short- or medium-range requirement of the mission. However, regardless of the range provided by reconfiguration, helicopters will never have the speed required to complete the long range missions under the cover of darkness. While the increased range configuration made to helicopters may not translate to the V-22, there are efficiency improvements which can be made to the CV-22 to increase its range. With those improvements, a combat radius in excess of 750 nautical miles is envisioned for most scenarios.

ANTI-NARCOTICS EFFORTS

QUESTION: In what way can Special Operations Forces, including civil affairs and psychological operations elements, be best used in the future to support this nation's anti narcotics effort?

ANSWER: All of USSOCOM's forces have a role in the nation's anti-narcotics effort. USSOCOM forces have unique capabilities to bring to bear in the National War on Drugs. These capabilities are encompassed within the three mission areas in which USSOCOM forces routinely train and operate: Special Operations (SO), Psychological Operations (PSYOP), and Civil Affairs (CA). The primary role for USSOCOM forces is to provide training and assistance to host nation forces and U.S. Government agencies engaged in anti-drug operations within existing laws and directives.

In the area of counternarcotics (CN) support for foreign countries, [deleted]

USSOCOM forces do not accompany host nation forces on operational missions.

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Civil Affairs programs to date have been implemented by CA Reserve components in the form of combined U.S./HN seminars on the role of CA assets in CN.

We have also provided support to, or worked with, the Drug Enforcement Administration (DEA), U.S. Coast Guard (USCG), Joint Task Force SIX (JTF-6), and the Defense Intelligence Agency (DIA). This support has consisted of communications teams aboard USCG vessels, airlift for JTF-6 operations, training of Border Patrol personnel, tactical communications requirements analysis for DEA, and intelligence sharing with DIA.

In regards to the future, I can say that USSOCOM forces will continue to be very actively involved in counternarcotics efforts. The support that I've already discussed will be expanded. I anticipate that the number of Mobile Training Teams (MTTs) and Deployments For Training (DFTs) will significantly increase. My plans for enhancement of ongoing and additional CN efforts in the future include increased support for DEA, with assignment of SO, Naval Special Warfare (NSW), and PSYOP/CA personnel to the DEA's Operation Snowcap staff.

UTILIZATION OF SPECIAL OPERATIONS FORCES

Question: What are the current rules of engagement for special operations forces stationed in Latin America? How many teams do you have in Latin America training indigenous police and military and where are they located?

Answer: The establishment of rules of engagement (ROE) for U.S. forces in Latin America is the responsibility of the Commander in Chief, US Southern Command (USCINCSO). Current peacetime rules of engagement may vary slightly throughout Southern Command's area of responsibility depending upon the specific mission, location, and potential threat to U.S. forces.

[Deleted]

Anti-Narcotics Efforts

Question: What is your assessment of these latin police and military forces to adequately translate your training into effective efforts? Should the U.S. military accompany D.E.A. agents into the jungles of Peru and Bolivia?

Answer: USSOCOM supports USCINCSO in the Andean region to train host nation police and military. As a supporting command, USSOCOM has not conducted a formal assessment of the training effectiveness. That is a function of the supported command; however, recent successes against the narco-trafficers in the region by host nation forces seem to provide testiment to the effectiveness of training by USSOCOM forces. The National Command Authorities has established a policy that proscribes such direct U.S. military involvement, and USSOCOM abides by and supports that policy.

Question: According to a December 15, 1989, Washington Times article, "The Pentagon has authorized U.S. military units (Delta Force Hostage Rescue Team) to seize drug suspects in other countries and bring them to the United States for trial." How do you coordinate with law enforcement agencies particularly as it relates to the reliability of your intelligence and your ability to obtain intelligence from non-intelligence sources?

Answer:

[Deleted]

Question: According to a January 22, 1990 article in Defense Week, U.S. officials have discussed with Peruvian Officials the possibility of placing remote sensors on aircraft. Are you familiar with those discussions and, if so, what has been the outcome of these talks? Do you believe that the U.S. Military should train Peruvian Air Force pilots to shoot down drug traffickers flying illicit cargo?

Answer: USSOCOM is not familiar with these talks but with our understanding of that country we would doubt this plan would be effective. The military controls almost all these airfields and would have to be aware of these sensors which would surely leak to the drug dealers. Suggest you address this to US SOUTHCOM for a complete answer. Yes, the U.S. Military should train the Peruvian pilots. This would aid in the U.S. war on drugs and provide the Peruvians with valuable training for their counter-insurgency efforts.

Question: What is your assessment of the State Department's program of crop eradication in Latin America?

Answer: The narcotics problem is largely one of supply and demand and it is unlikely that, given the lucrativeness of the business, eradicating crops in any given area will seriously impact the supply. Eradication is only one "front" in the war on drugs. In Bolivia, for example, the State Department manages a program of voluntary coca reduction, verification, direct payment, and alternative development heavily underwritten by bilateral and multilateral contributions. However, net coca reduction requires effective enforcement, alternative employment opportunity, and the political will to carry out involuntary eradication of illicitly cultivated coca. Thus far, such political will has not been demonstrated - in 1989 Bolivia met only half its agreed eradication target of 5,000 hectares and its total coca under cultivation increased from 49,300 hectares to 53,900 hectares. Voluntary eradication and alternative development are only now beginning to show results, and this is probably due to the declining prices of coca which have resulted from the Colombian crackdown that began in August last year. In July 1989, the US was offering $2,000 per hecta~~re of co~~ca voluntarily eradicated; at that time, a campesino could make 3 to 5 times that amount by growing the crop. In Peru, the world's leading producer of coca, est 110,400 hectares of illicit coca under cultivation, eradication efforts were terminated in February of 1989 due to security considerations. Eradication operations have not resumed, as all available resources are now focused on interdiction.

Without host government commitment to combat the narcotics problem reflected in realistic enforcement and demand reduction programs, economic pressures and the continued high demand for coca leaf will ultimately lead to expanded cultivation and increased coca production. Increased eradication efforts are unlikely, by themselves, to reverse this trend.

PANAMA

Question: Could you describe what happened to the SEAL units during Operation JUST CAUSE in Panama? Were there AC-130 gunships in the area? Why were they not called in to provide cover for the incoming SEAL units?

Answer: Several SEAL units were employed during Operation JUST CAUSE.

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All missions were direct action missions consistent with missions assigned to Naval Special Warfare Forces as set forth in U.S. Navy and SOF doctrine, and well within each task unit's capabilities to execute. The Panama Canal and patrol boat missions were accomplished without casualties, while the task unit at Paitilla Airfield suffered 3 killed and 9 wounded when engaged by forces in and around the PDF hangar. One of the wounded SEALs subsequently died of his wounds after his evacuation to and shortly after his arrival at a stateside medical facility. An AC-130H Gunship was in direct support of the Paitilla mission and hence did not have to be called in from elsewhere to provide cover.

Question: Were TV and RADIO stations in Panama considered "PRIME TARGETS" during Operation "JUST CAUSE"?

Answer: Yes. In addition to temporarily disabling Panamanian government-owned TV Channel 2, jamming/disrupting was employed on other public radio and TV channels to support tactical operations. On 20-21 December, using conventional and special operations helicopters, Special Forces disabled the transmitter and antenna assembly of Radio Nacional AM and FM stations.

82ND AIRBORNE'S AH-64 HELICOPTER RELIABILITY

Question: Could you comment on the apparent reliability problems suffered by the 82nd Airborne's "Apache" attack helicopters?

Answer: The 82nd Airborne AH-64 "Apache" helicopters were sent to Panama to conduct standoff engagements, at night, with highly accurate fire. Despite numerous hits, these aircraft successfully accomplished the assigned missions. A popped circuit breaker did cause the sophisticated target acquisition and designation system (TADS) to fail in an aircraft. In this condition, all weapons systems could be fired from the pilot's station, but with degraded capabilities. For example, no sight modification, laser designation, and laser ranging would be available. The TADS circuit breaker problem is fleet wide. AH-64 aircraft are being modified with ruggedized TADS circuit breakers in conjunction with engineering change proposals during scheduled phase maintenance inspections. One Apache experienced an aircraft abort during run-up due to a utility hydraulics pump failure. Another aircraft accomplished that mission. Utility hydraulics pump failures have not been a persistent problem in the 82nd. On some occasions, moisture in the line replaceable units (LRU's) may have caused forward-looking infrared radar (FLIR) imagery to be not as sharp as usual, but still quite usable. Moisture in LRU's is not believed to be a major Army problem.

PANAMA

Question: Could you comment on the AH-6F "Little Bird" Special Operations helicopter losses, particularly what role daylight operations played in the loss?

Answer: During operation JUST CAUSE there were four "Little Birds" lost. Three were combat losses, one was lost due to a non-combat accident. One of the three combat losses was during daylight operations.

[deleted]

In this case there was no surprise and the aircraft was most probably inside the effective range of the PDF weapons.)

Question: Could you discuss the difficulties that arose during the SEAL operation at Paitilla Airfield?

Answer:

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Several other "difficulties" have been reported, ranging from allegations of inappropriate forces to accomplish the mission, faulty intelligence, and untimely medical evacuation. We're analyzing all these areas to determine how to better see through the "fog of war" when next called upon to put our forces at risk in the interest of our nation. I've already spoken to the appropriateness of the mission.

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While the "fog of war" will always continue to exist, we intend to continue to do all we can to "thin" that fog.

PERFORMANCE OF THE LIGHT ARMORED VEHICLE (LAV) AND SHERIDAN TANK

Question: Could you comment on the performance of the Light Armored Vehicle (LAV) and the Sheridan Tank? Also, if you care to speculate on the advantages or disadvantages of the assault gun variant of LAV (LAV-AG) as the near-term solution for the airborne and light divisions requirement for a light tank?

Answer: The opportunity to comment on any forces which supported special operations missions during Operation JUST CAUSE is appreciated. LAVs were attached to the Joint Special Operations Task Force for only short periods as were the Sheridan Tanks and used primarily as a blocking force. Their job was to assist in preventing hostile forces from entering selected areas where special forces missions were being conducted. Both completed their assigned missions while attached to the JSOTF in a credible manner. Speculation vis a vis LAV/Light tanks could be more appropriately provided by force commanders routinely employing them. However, it's probable that an asset such as LAV or something similar would be of value in the LIC environment.

LIC - WAVE OF THE FUTURE

Question: Could you comment on the assertion that the U.S., in identifying low intensity conflict as the wave of the future, has embraced the lowest of the low, commando-style raids, while largely ignoring conflicts of somewhat higher intensity and longer duration, i.e., counterinsurgency?

Answer: We are focusing on maintaining a capability to respond to a wide range of threats across the broad conflict spectrum. As demonstrated recently in Panama, special operations forces can be augmented by conventional forces as the level of conflict intensity dictates.

Some typical insurgency responses can include application of military power through Direct Action missions, or indirect action through nation building programs such as Foreign Internal Defense and Security Assistance.

Counternarcotics Intelligence Support

Question: Could you describe the events and circumstances that led you to prepare to seize Columbian Cocaine Kingpin, Pablo Escobar, who was mistakenly believed to be in Panama? What kind of Intelligence were you relying on? How do you coordinate with law enforcement agencies particularly as it relates to the reliability of your intelligence and your ability to obtain intelligence from non-military sources?

Answer: [Deleted].

SUBCOMMITTEE RECESS

Senator **Inouye**. The subcommittee will stand in recess until Tuesday, March 20 at 9:30 a.m., when we will meet in open session in SD–192 on health issues concerning our military services.

Thank you very much.

General **Lindsay**. Thank you, sir.

[Whereupon, at 11:14 a.m., Thursday, March 8, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1991

THURSDAY, MAY 3, 1990

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:32 a.m., in room SD-124, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, DeConcini, Bumpers, Harkin, Stevens, McClure, Kasten, Cochran, and Specter.

DEPARTMENT OF DEFENSE

OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR POLICY

STRATEGIC NUCLEAR DETERRENT OF THE UNITED STATES

STATEMENT OF HON. PAUL WOLFOWITZ, UNDER SECRETARY FOR POLICY

OPENING REMARKS OF SENATOR INOUYE

Senator INOUYE. This morning the subcommittee examines the programs comprising the strategic nuclear deterrent capabilities of the United States. These programs to sustain our strategic forces and defenses are among the most controversial and costly in the entire defense budget. Much of the defense budget has been severely constrained; nevertheless, the original fiscal year 1991 request contained real growth of more than 21 percent for strategic offensive forces and about 20 percent for the SDI.

The proposed reduction in B-2 bomber procurement does not alter the fact that the strategic forces fare rather well in fiscal year 1991. So, as my colleagues will say, this large spending growth requires much justification since it comes as decreases are projected in future Soviet strategic forces from an Arms Control Treaty and slower modernization programs.

There is no doubt in my mind that the Soviets will continue to deploy devastating strategic nuclear forces. Perestroika and glasnost in Eastern Europe and the Soviet Union do not relieve the United States of the need to maintain sufficient deterrent forces. However, for the most part there is a sense of business as usual in the Pentagon's strategic offensive programs. The budget still contains two mobile land-based missiles and an unchanged Trident submarine building rate, and the Commander in Chief of SAC suggests that almost every program needed last year will be required this year.

Our deterrence requirements still seem to maximize the number of weapons we need to threaten the Soviets instead of redefining these needs to determine how much is enough at a much lower warhead level.

This general observation seems no less valid for the SDI program. Despite annual budget reductions and a changed Soviet threat, SDI is on schedule.

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This schedule suggests that SDI is on both a fiscal and arms control collision course with Congress and on a budgetary collision course with the Pentagon's conventional forces programs. In view of expected military, fiscal, and arms control realities, one must ask why the national security of the United States and its allies requires such a program pace and structure.

This morning's witnesses are the Pentagon's Under Secretary of Defense for Policy, the Honorable Paul Wolfowitz, the Commander in Chief of SAC, Gen. John T. Chain, Jr., and the Director of the SDIO, Gen. George L. Monahan, Jr.

Under Secretary Wolfowitz and General Chain will begin by addressing the strategic offensive programs and we are in closed session at this time. I assume that all of us here have top secret clearance. So all notes that are made must be retained in our subcommittee's secure facility.

The subcommittee may want to address policy questions about SDI to the Under Secretary at the end of the discussion of the strategic offensive programs and General Monahan will discuss SDI in the open session which will follow.

We thank you for appearing this morning. It is very helpful. We have received your prepared statements and they will be made part of the record and, if you wish, you may summarize your statements.

Mr. Secretary, please proceed, sir.

PRESENTATION OF SECRETARY WOLFOWITZ

Mr. Wolfowitz. Mr. Chairman, I appreciate the opportunity to testify before the subcommittee on the subject of strategic programs. Nuclear deterrence remains today, as it has been for over 40 years, the cornerstone of our national security policy. Our strategy is one of defending the United States by deterring any type of attack against this Nation or its allies.

To deter successfully, we must have the ability to respond to any credible threat, so that a potential aggressor will never see a nuclear attack as a plausible option, even in desperate circumstances.

While we have seen great changes in the Warsaw Pact conventional threat to Western Europe—and, I might add, we expect even bigger changes over the next 5 years—we have not seen any evidence to suggest that we should change or abandon the fundamental strategy of deterrence. In order to carry out this strategy effectively, our deterrent must be credible. That means we must have modern, reliable, survivable systems.

STATUS OF SOVIET UNION

For, despite the positive changes that we have seen, the Soviet Union remains a major military power and the Soviets have not altered their strategic military posture vis-a-vis the United States. Military forces, in particular strategic nuclear forces, are the Soviet Union's main claim to superpower status. Strategic forces may even become a relatively more important component of Soviet military power as the Warsaw Pact loses cohesion and Soviet conventional forces are reduced.

The Soviet Union continues to modernize its strategic nuclear forces at a robust pace. This includes continued construction of modern SSBN's, three types of bombers, and three types of ICBM's, two in mobile variants. While we debate Peacekeeper rail garrison development, the Soviets continue with the deployment of the train-mobile SS–24 missile, with its 10 warheads. While we debate research on the small ICBM, the Soviets are deploying hundreds of SS–25 road-mobile missiles. Last year alone, the Soviet Union produced 140 new ICBM's, where we produced 12 Peacekeepers, all spares.

While we debate initial production of the B–2, the Soviets continue to build Blackjack, Backfire, and Bear–H bombers. Last year, the Soviets built 45 bombers; we produced 1 B–2. While we debate research toward the deployment of an effective defense, the Soviets continue spending on their defense-related technology. Last year, the Soviets activated their upgraded ABM system; we have no such system.

Even if the long-term result of President Gorbachev's reforms is a less threatening Soviet Union, as I believe is likely, the USSR will still possess potent nuclear forces, the world's most extensive air defense network, and the world's only antiballistic missile system. Moreover, while the administration hopes that Gorbachev succeeds in his reforms, we must bear in mind that political leaders and intentions can change much faster than military capabilities.

Over the last several years, we have seen a number of unpredictable developments in the Soviet Union and Soviet policy. These have been, for the most part, entirely positive, such as the fall of the Berlin wall. However, there are also signs of severe internal stress in the Soviet Union. A crisis in leadership could result in a different kind of unpredictability, one that could have seriously adverse consequences for the West. Our nuclear deterrent and our investment in strategic defenses provide a hedge, should that occur, a hedge that consumes a relatively small share of our defense budget.

LONG-TERM IMPLICATIONS

We must remember that the decisions we make today will have significant long-term implications for our force structure. The systems that we are currently developing are the systems that will make up our deterrent force well into the next century. We should not cancel vital elements of our future deterrent now based on the positive developments of the last 6 months, when no one can predict what lies in store for us in 10 or 20 years.

Although the Soviet leadership has changed, and changed dramatically, it is very difficult to predict how it will react to future uncertain contingencies. A failure to modernize our strategic forces would deny us the characteristics we need for an effective and stable deterrent force—one that is compatible with START and one that will facilitate an orderly transition toward a deterrent based increasingly on defenses rather than just the retaliatory capabilities of our strategic offensive forces.

TRIAD

Reductions in U.S. force levels under START will put a premium on flexibility, survivability, and hedges against unforeseen developments that could threaten our retaliatory capabilities. Each leg of the Triad has unique attributes that complement the others. ICBM's provide assured connectivity, sovereign basing, and responsiveness. SLBM's provide survivability and endurance. Bombers are recallable and provide deployment flexibility, including the ability to carry out conventional roles.

The different basing modes and means of penetration in the Triad contribute to an aggressor's uncertainty about his ability to attack U.S. forces preemptively or to defend against U.S. retaliation. To keep the Triad credible, each leg must be kept modern and effective. Our current forces are aging. By the turn of the century, without further modernization, nearly all of our forces will be over 10 years old. Forty percent of them would be from between 20 and 40 years old. We do not want to enter the next century with a bomber force that can no longer penetrate and survive in Soviet air space. START puts no constraints on Soviet air defenses.

Similarly, we do not want to retain an ICBM force based solely in silos, particularly while the Soviets continue to improve their capability to attack hard targets with modernized first-strike systems such as the SS–18.

The President's budget reflects an integrated set of programs designed to modernize our strategic Triad. The B–2 will be our penetrating bomber for the 21st century, while the advanced cruise missile will extend the effectiveness of our 1950's vintage B–52's far beyond their originally planned life cycle. A mixed force of standoff and penetrating bombers places the maximum stress on Soviet air defense, which, I repeat, will not be limited by START. Without an effective U.S. penetrating bomber, the Soviets can shift their air defense efforts forward and concentrate on defeating our cruise missile carriers.

RECENT CHANGES

We have made some changes with respect to the new world that we are entering. The most important of these were announced last week by Secretary Cheney. As a result of the recent major aircraft review, the Secretary has decided to reduce the B–2 buy from 132 to 75 aircraft. This will save over $9 billion from fiscal year 1991 to fiscal year 1994. A B–2 force of 75 aircraft would be sufficient to deploy two wings that will provide the minimum essential target coverage to capitalize on the penetrating bomber role.

TRIDENT SUBMARINE

Let me turn now to the sea-based leg of our Triad. The new, quieter Trident submarine with a new, more accurate missile, is the centerpiece of SSBN modernization. We have recovered from last fall's testing problem, which I know was a matter of concern to this subcommittee, and the U.S.S. *Tennessee* went on patrol with the D-5 last month. With the Trident, the United States will maintain a smaller, affordable SSBN force.

The President is requesting funding for procurement of the 18th Trident submarine. All likely post-START forces that we have considered contain at least this many submarines including two to three on overhaul. We have been successful in the START negotiations in negotiating an exemption for submarines in overhaul, and we would be foolish not to take advangage of this important provision. Procuring a smaller number of submarines would leave this critical leg of the Triad more vulnerable to possible advances in underwater detection.

Part of our program also calls for the backfit of the D–5 missiles into the first eight Trident submarines, those currently carrying the C–4 missile. That move has important advantages. That not only adds to targeting flexibility but enhances the survivability of the force. It is also cost efficient, because it permits us to have a single common logistics support system instead of maintaining two separate ones for two different Trident forces.

ICBM MODERNIZATION PROGRAM

Finally, let me address the ICBM modernization program. That program includes rebasing 50 Peacekeeper missiles from Minuteman silos onto trains garrisoned at seven Strategic Air Command bases throughout the United States. Delivery of the first operational unit is planned for late 1992, with the deployment of all 50 missiles planned for completion in 1994.

The second part of the President's two-missile program is the small ICBM. We plan to begin deployment of that missile beginning late in 1997.

The phasing of these two programs fits both with fiscal realities, given the greater expense of the small ICBM and with our perception of the relative urgency of the two systems.

Our overall program is consistent with and supportive of our objectives in the START negotiations. None of the new systems being requested in the President's budget would be scrapped under a prospective START treaty. The prospects for a START agreement remain good, although I must report that the progress at the recent ministerial between Secretary Baker and Foreign Minister Shevardnadze was disappointing.

POSITIVE RESULTS

In February, at the previous ministerial in Moscow, we had made considerable progress on START and reached understandings on some key issues, especially concerning air- and sea-launched cruise missiles. At the Washington ministerial, however, the Soviets retreated from what had previously been agreed on some of these issues.

On the positive side, we did make progress in some other areas, and the Soviets also presented a draft of a very general statement of principles for follow-on negotiations after START is completed. Nevertheless, we need to make significantly more progress, and quickly, if we are to achieve our goal of resolving all the major issues prior to the summit. We will not be able to do that unless the Soviet side resumes the positive attitude that characterized the work of both sides at the Moscow ministerial.

START offers the promise of important benefits to the United States. Our modernization programs, by reducing the vulnerability of our ICBM force, by ensuring effective and survivable retaliatory capabilities at sea, and by providing a credible force of strategic bombers, will help us to reap the benefits from START.

Looking beyond START, we have begun to formulate our longer term arms control objectives. We should keep in mind that arms control agreements are not an end in themselves, but are useful only to the extent that they enhance our national security. The purpose is not merely to reduce numbers, although we think that modernization and reciprocal reductions by the Soviets would allow us to do so safely. A goal in a follow-on agreement should be to raise stability through emphasizing increased reductions of the most destabilizing systems—that is, vulnerable, silo-based MIRV'ed ICBM's. We will continue to emphasize the stabilizing effects of slow-flying systems that are recallable and that cannot be used in a first strike.

Finally, one of our key objectives will remain to negotiate a cooperative transition to a strategic deterrent more reliant on defenses. Like START, the President's strategic program, including the strategic defense initiative, is designed to support these longer term objectives and is essential to achieving them. If we go below START levels to lower levels of forces, we will still want forces that are highly capable and highly survivable. The new programs that we are talking about—the B-2, the mobile ICBM's, and the Trident D-5—all fit into that category.

Reduced force levels will indeed put a premium on flexibility and hedges against uncertainty. To increase stability as we move beyond START I, we will still want an ICBM force that is not based solely in vulnerable silos. We will still want a bomber force with the stability inherent in slow-flying systems. And we will want a submarine force that is survivable and flexible as possible.

Finally, we will want to expand the idea of a strategic offensive Triad, if possible, to include a well-balanced mixture of offensive and defensive deterrence. Strategic defense can make a unique contribution to deterrence and may be necessary to ensure stability at lower levels of offensive forces. Certainly cheating and breakout would become more significant risks at lower levels, and strategic defenses would help to provide the necessary insurance.

Thank you, Mr. Chairman. We look forward later to your questions.

Senator INOUYE. Thank you, Mr. Secretary.

[The statement follows:]

STATEMENT OF HON. PAUL WOLFOWITZ

Mr Chairman and Members of the Committee:

I appreciate the opportunity to testify before the subcommittee on strategic programs. Nuclear deterrence remains today -- as it has for over forty years -- the cornerstone of our national security policy. Our strategy is one of defending the United States by deterring any type of attack against this nation or its allies. To deter successfully, we must have the ability to respond to any credible threat, so that a potential aggressor will never see a nuclear attack as a plausible option even in desperate circumstances.

While we have seen great changes in the Warsaw Pact conventional threat to Western Europe, we have not seen any evidence to suggest that we should change or abandon the fundamental strategy of deterrence. In order to carry out this strategy effectively, our deterrent must be credible. That means, modern, reliable, survivable systems.

For despite the positive changes we have seen, the Soviet Union remains a major military power, and the Soviets have not altered their strategic military posture vis-a-vis the United States. Military forces, in particular strategic nuclear forces, are the Soviet Union's main claim to superpower status. Strategic forces may even become relatively more important component of Soviet military power as the Warsaw Pact loses cohesion and Soviet conventional forces are reduced. Whereas much time, effort, and resources would be required to reconstruct conventional forces after CFE, Soviet nuclear forces will remain available at a moment's notice to the current or future Soviet leadership.

The Soviet Union continues to modernize its strategic nuclear forces at a robust pace. This includes continued construction of modern SSBNs (Delta IV), three types of bombers (Blackjack, Backfire, and Bear H), and three types of ICBMs (SS-18 Mod 5, SS-24, and SS-25), two in mobile variants. While we debate

Peacekeeper Rail Garrison *development*, the Soviets continue *deployment* of the train mobile SS-24 missile with its 10 warheads. While we debate *research* on the Small ICBM, the Soviets are *deploying* hundreds of SS-25 road mobile missiles. Last year alone, the Soviet Union produced 140 ICBMs; we produced 12 Peacekeepers -- all spares. While we debate initial production of the B-2, the Soviets continue to build Blackjack, Backfire and Bear H bombers. Last year the Soviets built 45 bombers; we produced one B-2. While we debate research toward the deployment of an effective defense, the Soviets continue spending on their defense-related technology. Last year the Soviets activated their upgraded ABM system; we have no such system.

Even if the long-term result of President Gorbachev's reforms is a less threatening Soviet Union, the USSR will still possess potent nuclear forces, the world's most extensive air defense network, and the world's only anti-ballistic missile system. Moreover, while the Administration hopes that Gorbachev succeeds in his reforms, we must bear in mind that political leaders and intentions can change much faster than military capabilities. Over the last several years, the Soviet Union has been extremely unpredictable. This unpredictability has brought positive results, such as the fall of the Berlin Wall. However, there are also signs of severe internal stress in the USSR. A crisis in leadership could result in another kind of unpredictability, one that could have seriously adverse consequences for the West. Our nuclear deterrent and investment in strategic defenses provide a hedge should that occur, a hedge that consumes a relatively small share of our defense budget.

In this regard, we must remember that the decisions we make today will have significant long-term implications for our force structure. The systems that we are currently developing are the systems that will make up our deterrent force well into the next century. We should not cancel vital elements of our future deterrent now, based on the positive developments of the last six months, when no one can predict what lies in store for us in ten to twenty years.

For these reasons, it would be premature to think we can extract a peace dividend from funding for our strategic nuclear forces and the Strategic Defense Initiative. That check is not ready to be cashed. Although the Soviet leadership has changed, and changed dramatically, it is very difficult to predict how it will react to future contingencies.

Peace is a long term investment. It requires patience. Failure to modernize our strategic forces would deny the U.S. the characteristics we need for an effective and stable deterrent force, one that is compatible with START, and one that will facilitate an orderly transition towards a deterrent based increasingly on defenses, rather than just the retaliatory capabilities of our strategic offensive forces.

Reductions in U.S. force levels under START will put a premium on flexibility, survivability, and hedges against unforeseen developments that could threaten our retaliatory capabilities. A Triad of ICBMs, SLBMs, and bombers will remain necessary to provide these characteristics.

Each leg of the Triad has unique attributes that complement the others. ICBMs provide assured connectivity, sovereign basing, and responsiveness. SLBMs provide survivability and endurance.

Bombers are recallable and provide employment flexibility, including conventional roles. Within the bomber force, penetrators and cruise missile carriers complement each other's effectiveness. The different basing modes and means of penetration in the Triad contribute to an aggressor's uncertainty about his ability to attack US nuclear forces preemptively, or defend against a US retaliatory attack. They also help to provide the President with confidence in his ability to retain options for retaliation, thus reducing any unwarranted pressures for nuclear escalation in a crisis. These are both critical elements of stability.

To keep the Triad credible, each leg must be kept modern and effective. Our current forces are aging. By the turn of the century, the average age of our Minuteman force will be over 30 years, and our most "modern" variant of the B-52 (the B-52H) will be, on average, almost 40 years old. Without further modernization, nearly all of our forces will be over ten years old, with 40 percent from 20 to 40 years old.

There are other considerations supporting the need for modernization. We do not want to enter the next century with a bomber force that can no longer penetrate and survive in Soviet air space. START puts no constraints on Soviet air defenses. Similarly, we do not want to retain an ICBM force based solely in silos while the Soviets continue to improve their capability to attack hard targets with modernized first-strike systems such as the SS-18.

The President's budget reflects an integrated set of programs designed to modernize our strategic Triad. We have designed these programs to make them affordable in these difficult fiscal times, but without endangering what we believe is a necessary margin of safety. Like the Triad, the elements of the strategic modernization program are interconnected and mutually supportive.

The B-2 will be our penetrating bomber for the 21st century, while the Advanced Cruise Missile will extend the effectiveness of our 1950s vintage B-52s well beyond their original life cycle.

Modern, highly survivable strategic bombers not only provide the flexibility to place a full range of targets at risk, but they may be recalled or redirected after they are launched. A mixed force of standoff and penetrating bombers will place the maximum stress on Soviet air defenses, which the Soviets continue to upgrade and proliferate, and which, again, will not be limited by START. Without an effective US penetrating bomber, the Soviets can shift their air defense efforts forward, and concentrate on defeating our cruise missile carriers. In addition, a modern, stealthy penetrator can evade unanticipated defenses -- such as mobile SAMs and look-down/shoot-down fighters -- in a way that preprogrammed cruise missiles cannot.

As a result of the recent Major Aircraft Review, Secretary Cheney has decided to reduce the B-2 buy from 132 to 75 aircraft. This will save over $9 billion from FY 91 to FY 94. A B-2 force of 75 aircraft will be sufficient to deploy two wings, which will provide the minimum essential target coverage to capitalize on the penetrating bomber role.

Moving to the sea-based leg of the Triad, the new, quieter Trident submarine, with a new longer range and more accurate D-5 missile, is the centerpiece of SSBN modernization. We have recovered from last fall's testing problem -- I know this was a matter of concern to the subcommittee -- and the USS Tennessee went on patrol with the D-5 last month. The Trident SSBNs, coupled with the D-5 missile, represent a significant improvement over the Poseidon SSBNs, which we are in the process of retiring. As we near the end of this decade, the Poseidon SSBNs will be retired completely leaving only Trident. With the Trident, the United States will maintain a smaller, affordable SSBN force.

The President is requesting funding for procurement of the 18th Trident submarine. All likely post-START forces that we have considered contain at least this many submarines, including two to three in overhaul. We have been successful in negotiating an exemption in START for submarines in overhaul, and we would be foolish not to take advantage of this important provision. Procuring a smaller number of submarines would leave this leg of the Triad more vulnerable to Soviet advances in underwater detection.

Part of our Trident modernization plan calls for the backfit of the D-5 missile into the first eight Trident submarines, which currently carry the C-4 missile. Moving to an all D-5 force has important advantages. The increased range not only adds targeting flexibility, but enhances SSBN survivability by expanding the operational patrol areas for the boats. Logistics support will also become more cost-efficient by having a common missile.

Finally, the President's ICBM Modernization program includes rebasing 50 Peacekeeper missiles from Minuteman silos onto trains garrisoned at seven Strategic Air Command bases throughout the United States. Delivery of the first operational unit is planned for late 1992, with the redeployment of all 50 missiles planned for completion in 1994. The second part of the President's two-missile program is the Small ICBM. Research and development continues on this mobile missile system. The missile is designed to be transported both on and off road in a Hard Mobile Launcher. We plan to begin deployment of the missile beginning late in 1997.

The rail-based Peacekeeper, which will be comparable to the Soviet SS-24, will provide a near-term, low-risk, low-cost means to increase the survivability of our ICBM force against the most likely attack scenario -- a strike with strategic warning. The Small ICBM would provide insurance against a less likely scenario -- a surprise attack. The phasing of the two fits with fiscal realities, given the greater expense and lesser urgency of the second system.

Our strategic modernization program is consistent with and supportive of our objectives in the START negotiations. It is important to be aware that, unlike the INF Treaty, START will not force us to destroy new systems that we are deploying under our modernization program. START allows for replacement of aging systems. None of the new systems requested in the President's budget would be scrapped.

The prospects for a START agreement remain good, although I must report that the progress at the April Ministerial was disappointing. In Moscow in February, we had made considerable progress on START, and reached understandings on some key issues, especially, air- and sea-launched cruise missiles. At the Washington Ministerial, however, the Soviets retreated from what had been previously agreed on these issues.

On the positive side, some progress was made in other areas, and the Soviets put forward some new ideas on certain issues. The Soviets also presented a draft of a very general statement of principles for follow-on negotiations after START is completed.

Nevertheless, we must make significantly more progress, and quickly, if we are to achieve our goal of resolving all major issues prior to the summit. We will not be able to achieve this goal unless the Soviet side resumes the positive attitude that characterized the work of both sides at the Moscow Ministerial. We are working diligently in Geneva to revive and build upon our earlier progress, and we hope that the Soviet leadership will direct its delegation to negotiate in the same spirit. The Administration has stated, however, that we will not negotiate against an arbitary deadline.

START offers the promise of important benefits to the United States. One critical benefit is a substantial reduction in Soviet ballistic missile warheads and, in particular, deep reductions in the most destablizing strategic systems -- heavy ICBMs. At the same time, START will increase stability through a shift in emphasis toward slow-flying aircraft and cruise missiles that cannot be used for a first strike. Our modernization programs -- by reducing the vulnerability of our ICBM force, ensuring effective and survivable retaliatory capabilities at sea, and providing a credible force of strategic bombers -- will help us to reap the benefits from START.

Looking beyond START, we have begun to formulate our longer term arms control objectives. We should keep in mind that arms control agreements are not an end in themselves, but are useful only to the extent that they enhance our national security. The purpose is not merely to reduce numbers, although we think that modernization and reciprocal reductions by the Soviets would allow us to do so safely.

A goal in a follow-on agreement should be to raise stability through emphasizing increased reductions of the most destabilizing systems, that is, vulnerable, silo-based MIRVed ICBMs. We will continue to emphasize the stabilizing effects of slow flyers that are recallable and which cannot be used for first strike. Finally, one of our key objectives will remain to negotiate a cooperative transition to a strategic deterrent more reliant on strategic defenses.

Like START, the President's strategic program, including the Strategic Defense Initiative, is designed to support these longer term objectives -- and is essential to achieving them. Regardless of the timing and precise objectives of any follow-on negotiations, our modernization program will provide us the type of strategic forces that we will want to retain.

In a force posture reduced below START levels, we will want forces that are highly capable and highly survivable. The B-2, the mobile ICBMs, and the Trident/D-5 all fit into that category. Reduced force levels will also put a premium on flexibility and hedges against uncertainty -- attributes provided by the Triad. While we might seek to shift the emphasis among the legs of the Triad, the basic structure will remain sound.

To increase stability as we move beyond START I, we will still want an ICBM force that is not based solely in silos. We will want a bomber force -- with the stability inherent in slow-flying systems -- that can reach its targets despite continued improvements in Soviet air defenses. And will want a submarine force that is as survivable and flexible as possible.

Furthermore, we will want to expand the idea of a strategic offensive Triad to include a well-balanced mixture of offensive and defensive deterrence. Strategic defense can make a unique contribution to deterrence and may be necessary to ensure stability at some level of offensive forces below projected START forces. Certainly cheating and breakout would become more significant risks at lower levels of forces, and strategic defenses would help to provide necessary insurance.

Strategic modernization must continue under START and is essential to provide the basis for follow-on negotiations. The Soviets are introducing new systems at an uninterrupted rate and will clearly have deployed a fully modernized strategic force under START. We cannot enter into an agreement -- or lay the groundwork for follow-on negotiations -- with old systems becoming less reliable and less effective.

Thank you Mr Chairman and members of the committee for inviting me here today. I am prepared to answer your questions.

STATEMENT OF GEN. JOHN T. CHAIN, JR., COMMANDER IN CHIEF, STRATEGIC AIR COMMAND, AND DIRECTOR, STRATEGIC TARGET PLANNING

Senator INOUYE. General Chain.

General CHAIN. Thank you, Mr. Chairman. Thank you for the warm welcome. I am delighted to have the opportunity to participate with you in this dialog. To me, these are some of the most important issues facing our country and the changing world.

I have submitted my formal statement for the record, and I appreciate you accepting it in full.

STATEMENT HIGHLIGHTED

First, I believe a strong strategic nuclear deterrent is as important to America's future as it has been to America's past. Second, to understand the value of strategic forces, they must be thought about in three distinctive time periods—the deterrent period, the crisis period, and the warfighting period.

One of the many problems of the ongoing dialog is that people unblend these three periods. Although interrelated, each has to be understood as a separate entity because each places different premiums on the capabilities of each strategic system. Finally, the promise of arms control is the only way to reduce military threat in a tangible, mutual, verifiable, and stable manner.

TRIAD OF FORCES

In the final analysis, I believe the answer lies in retaining a modernized, flexible, and balanced Triad of forces. Further, that balance must apply among the three legs of the Triad as well as in the aggregate against Soviet strategic nuclear forces; that is, balanced internally as well as externally.

As the United States looks at the value of modernizing the Triad it is essential to consider force contributions of each period—deterrent, crisis, and warfighting. It is the combined effect of these periods that makes the Triad work so well. We need to remember also that combat capability is made up of two essential components. I have already mentioned the first component—quality weapons systems. The second part of the combat capability equation is quality people. Highly motivated, experienced people are key to a strong U.S. nuclear deterrent, and I believe now is the time to reaffirm the commitment to provide an equitable standard of living and to continue the way of life for our people.

WORLD INSTABILITY

Finally, SAC is not blind to the dramatic changes occurring in the world today, nor to the reality that the world is going to go through a period of increased instability. The Soviet Union remains a nuclear superpower, and they are continuing modernization of the strategic nuclear capabilities that will give them a balanced, modernized force after the START agreement is signed.

We, too, should seek to optimize our post-START force structure to ensure that we will continue to deter in the years to come and be postured for the multipolar world that we will face tomorrow.

As a last point, the reason I feel so strongly about the strategic modernization program, is the United States can afford to to have a draw in a war, as we had in Korea. And, as much as I hate to say it, the United States can afford to lose a war, as we did Vietnam. But the United States can never afford to go to a nuclear war. Therefore, we owe the American people a force structure which can deter any nuclear power or possessor of weapons of mass destruction, no matter who their leaders are or what their stated intentions might be.

I welcome this opportunity to participate in this dialog as we collectively strive to maintain the peace we have worked so hard to preserve.

[The statement follows:]

STATEMENT OF GEN. JOHN T. CHAIN, JR.

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

This decade promises unprecedented change in international relations which in turn points to a period of instability in the world's security environment. The changes occurring in Eastern Europe and, to a lesser degree, in the Soviet Union, coupled with the U.S. deficit, have intensified the debate on both the size and composition of our strategic nuclear forces. I welcome this opportunity to participate in this dialogue.

The goal of this dialogue should be to find the path that will allow us to maintain the peace we have all worked so hard to preserve. And while we conduct these discussions and decide what our military forces should look like over this decade and beyond, we must remember:

the United States can have a draw in a war as we did in Korea,
the United States can lose a war as we did in Vietnam,
but the United States can never afford to fight a nuclear war.

It is toward that end that I share my thoughts on the opportunities and challenges facing us.

THOUGHTS ON DETERRENCE

Since World War II, deterrence, based upon highly capable nuclear forces, has been the cornerstone of our nation's military strategy. To support this strategy, we have fielded forces that have convinced the Soviets they could not launch a successful attack against the U.S. or its allies. The Soviet Union is, and will remain, a nuclear superpower. Therefore, a Triad of U.S. strategic offensive forces will remain essential to deterrence.

The primary purpose of these forces is to deter a nuclear war. The challenge, then, is to deploy a balanced, modernized Triad that will deter throughout the potential range of deterrent scenarios--from normal day-to-day peace through the brink of nuclear war--yet allow effective warfighting should deterrence fail and nuclear war ensue.

To understand the value of these forces in the Triad, they must be thought about in three distinct time periods:

-- The deterrent period,
-- The crisis period,
-- And the warfighting period.

One of the many problems in the ongoing dialogue is that people blend these three periods. Although interrelated, each has to be understood as a separate entity because each places different premiums on the system capabilities of each strategic system.

THE PERIOD OF DETERRENCE

Force structure--the size, composition, capability, and posture of our nuclear forces--is what deters. Our forces must be viewed from the position of an adversarial planner. That planner must see an array of U.S. forces which can deliver an unacceptable retaliatory blow. And, when that is the case, then he knows he can not attack--and deterrence follows.

Each leg of the strategic Triad of forces provides unique contributions during the period of deterrence. ICBMs in silos contribute sovereign basing, very high alert rates, assured connectivity, capability for prompt launch and quick arrival, and accuracy. SLBM weapons at sea are highly survivable and enduring. Bombers contribute because of the flexibility achieved by having man-in-the-loop. They add tremendous diversity to the Triad making it extremely difficult for an adversary to figure out how they could attack or defend against U.S. nuclear forces. Bombers also are stabilizing because they are not a first-strike threat.

The bottom line for the deterrent period is that postured strategic forces on alert provide certainty of effective U.S. retaliation against an aggressor. No aggressor could assume that the President of the United States would not use these forces to respond to an unprovoked bolt-out-of-the-blue attack.

THE PERIOD OF CRISIS

History is strewn with examples of countries reacting to political-military crises: sometimes leading to war--sometimes deescalating to relative calm. A major U.S. objective during a crisis, particularly if the crisis involves a country possessing nuclear capability, is to have the capability to change the nuclear equation rapidly to effect the outcome of the crisis and prevent the outbreak of war. In this regard there is a premium on forces that can add stability to a crisis by sending clear signals of intent and resolve or by adding to the uncertainty about how successful an attack on this country would be.

Mobility adds to stability during a crisis because it makes strategic forces more difficult to hold at risk.

During a time of crisis, dispersing mobile ICBMs would be an effective defensive move. Although it would not increase our offensive capability, it would decrease the adversary planner's perceived probability of success--the same as Soviet mobile ICBMs now do to the U.S.

Bombers and submarines play a somewhat different role during a crisis. Generation and dispersal increase total force survivability, as well as weapon availability, and further decrease the adversary planner's confidence of success. When bombers are dispersed they are even more survivable, and when launched on airborne alert they are virtually invulnerable to attack. Once a generated submarine is at sea, it is highly survivable.

The bottom line for the crisis period is that mobility of strategic forces bring stability to the crisis by reducing the probability of attack success on either side.

THE PERIOD OF WAR

If deterrence fails, U.S. strategic forces must be able to attack and destroy what an adversary holds most dear. ICBMs, with their quick reaction, shoot at what is shooting at us--disrupting the attack in progress and destroying any unfired missiles, and attacking other time sensitive targets. SLBMs attack multiple-type targets and provide an excellent strategic reserve force. Penetrating bombers, with a man-in-the-loop, provide the maximum flexibility in the type, yield, and number of weapons carried as well as for real-time damage assessment and retargeting, and possess the only capability to hold at risk mobile targets.

The bottom line for the period of war is a Triad of forces provides the variety of strength which assures a devastating retaliatory strike and thereby ensures that deterrence won't fail.

As we look at the value of modernizing the Triad, it is important to consider force contributions during each period: deterrent, crisis, and warfighting. It is the combined effect during all periods that makes the Triad work so well.

DEVELOPING THE SIOP

Planning for deterrence is a process whereby we take the guidance provided by the President, the Secretary of Defense, and the Joint Chiefs of Staff and develop a finite list of targets. Against those targets, we develop an operational plan using existing forces and weapons. Some of the things considered in the planning are:

- Number of targets.
- Target hardness, size, and its defenses.
- Time of arrival requirements.
- Level of damage required.
- Targets which require more than one weapon to have assured damage.
- Cross targeting to guard against one leg of the Triad failing.
- Target mobility.
- Weapon availability.

Because of enemy defenses, communication effectiveness, and weapon reliability, the probability of a weapon arriving at a target and doing the damage desired is not 1.0. However, the probability of damage per target, per target group, and in total can be, and is, calculated. A degree of confidence in our capabilities and military sufficiency comes from that calculation.

Arms control agreements also have a direct influence on the SIOP. The proposed START agreement would put new finite constraints on both sides, so our forces will need to be optimized within the START constraints to continue to provide the country the level of deterrence it requires.

The bottom line for the SIOP is that the national guidance, resulting target base, and weapon systems available are the essential elements in building the plan. The changing effectiveness of the SIOP is a result of changing threats, changes to enemy defenses, our systems "wearing out," the added capabilities of our new systems, and arms control. The degree of confidence in the strength of the SIOP influences force structure requirements.

THE STRATEGIC MODERNIZATION PROGRAM

The strategic forces in the future must be flexible to accommodate changes in the world political and military environment, must be modernized to maintain an adequate level of combat capability, and must remain balanced among the three legs of the Triad as well as in the aggregate versus Soviet strategic nuclear forces--that is, balanced internally as well as externally. The country embarked on a well thought-out strategic modernization program ten years ago. The program includes the B-2 bomber, Peacekeeper Rail Garrison, and the Small ICBM. Each will be addressed in order.

PENETRATING BOMBERS

To understand the requirement for the B-2, one needs to understand the role of penetrating bombers--those aircraft that fly to their targets and deliver their weapons.

To meet the national guidance, U.S. forces must hold several target groups at risk. This target base can be divided into different categories each having their own unique characteristics. For example, some targets are time urgent--they must be struck quickly. Others are highly defended. Still others are "hard" targets that require weapons with high yield and accuracy or "broad" targets that still require high yield, but for which accuracy is not a premium. An especially complex target group are those that may or may not be at a given geographic coordinate--in other words, mobile targets officially referred to as relocatable targets.

Each group is targeted with the most logical weapon system. For example, for those time urgent and hard targets requiring speed, yield and accuracy, we use the Peacekeeper ICBM. We are careful not to be completely reliant on any one system for all targets in a specific group. This is because no system in the Triad is, or ever will be, perfect--the probability of arrival of any weapon is always less than one. Therefore, to ensure success we use weapons from more than one leg of the Triad against very important targets.

Except for those targets which must be hit quickly, all target groups can be and are targeted with bombers. In other words, a significant portion of the Soviet target base can be struck with a bomber weapon. In addition, a number of targets fall into a category we call "look-shoot" targets.

The manned penetrating bomber is ideally suited for targets in the "look-shoot" category. In this case the bomber flies to the target. Depending on the damage observed by the crew, they can strike it with a very accurate gravity bomb or short range attack missile or pass by it and go to the next assigned target. Such targeting efficiency becomes even more important in a START environment of reduced strategic weapons.

There are also a number of targets, and the number grows every day, which are relocatable. The Soviets have already made many of their systems mobile; e.g., rail- and road-mobile ICBMs and aircraft. A penetrating bomber is the only weapon system that has the ability and the capability to be enhanced to hold mobile targets at risk. The bottom line is penetrating bombers are the most flexible system the U.S. has now--or will have in the future. They are essential if the U.S. is to have a strong deterrent force in the future.

B-2

Today, the B-52S and B-1Bs stand a very good chance of reaching their targets and the post-strike bases. But as the Soviet defenses increase, toward the turn of the century, the B-52s must transition to a standoff cruise missile role and the B-1B will have to be moved to less highly defended areas. Without the B-2, by the late 1990s we will only have 97 penetrating bombers and they will be effective only against lesser defended targets. We still will have to have a penetrating bomber to get into those highly defended areas where the targets the Soviets hold most dear are located--and that's where the B-2 bomber will pay large dividends.

Thanks to the B-1B program, the U.S. can develop the B-2 at a prudent pace. The B-2 is a warplane that will keep ahead of any adversary well into the next century and is a keystone in leveraging U.S. strength against Soviet weaknesses. As you know, the aircraft is being flown in a highly successful test program. I believe the B-2's unique capabilities will allow it to survive in highly defended regions and hold at risk a wide range of Soviet offensive and force projection forces on an enduring basis.

Further, SAC analyses have shown that the total effect of the B-2 on overall capability, as viewed in the context of the total force, is greater than the direct impact of its weapons. The value added by the B-2 has two aspects. First, is its added capability over the B-1B to deliver weapons on heavily defended targets. Second, is the "waterfall" effect--the capability to employ the B-1B in a more effective manner. The B-2 is the catalyst which causes the bomber force to be worth more than the sum of its parts.

The B-2 also represents strategic stability. They are too slow to be used as first-strike weapons, but can render the other side's first strike as suicidal. That's why both sides in START have agreed to use counting rules that increase the importance of bombers over missiles. The B-2 program is central to our strategic arms reduction strategy.

PEACEKEEPER RAIL GARRISON

The second system in the strategic modernization program is the Peacekeeper Rail Garrison system. The strength of the ICBM leg of the Triad is during the deterrent phase and in the warfighting phase--both missions can be done from silos. However, during crises, the overriding ICBM need is to be mobile. Since it is very difficult to hold a mobile force at risk, making ICBMs mobile will add increased stability in a crisis. To this end, the Peacekeeper Rail Garrison offers the nearest term, lowest cost, least technical risk solution. This country needs to move ahead with Peacekeeper Rail Garrison without further delay.

SMALL ICBM

The third system in the modernization program is the Small ICBM. Development of the Small ICBM for later deployment will provide added mobile capability in an employment mode which will be complementary to Peacekeeper Rail Garrison. This system can survive even with the shortest of warning time. Being highly responsive to tactical warning scenarios, the Small ICBM will be very difficult to attack and thus will be of particular value by increasing crisis stability. Finally, a highly survivable single warhead missile is ideally suited for the strategic reserve mission.

OTHER SYSTEMS

B-1B

All B-1B aircraft are on line and the system has matured into the world's best operational bomber. I have personally seen the results of the B-1 in SAC's stringent Operational Readiness Inspection program and in the highly intensive SAC Bombing and Navigation Competition. These programs clearly show me that the B-1 is an outstanding warfighting machine. However, to meet the demands of the future, I must stress the importance of completing the CORE electronic countermeasures program and installing a radar warning receiver to improve the B-1B's effectiveness against a dynamic defensive environment. These modifications are essential if the B-1B is to be a viable penetrating bomber past the mid- 1990s.

KC-135R

I strongly support continuing the KC-135R conversion program--it is integral to the success of both nuclear and conventional missions. This program provides 50 percent more mission capability than the original KC-135A. Given the current and projected worldwide tanker shortfall, to do less would impose unacceptable limitations on theater commanders' operations.

MINUTEMAN MISSILES AND THE B-52

I also want to emphasize the importance of continued support for Minuteman and the B-52. We have had great success in modifying both systems through a series of sensible, cost-effective programs. For example, we have more than doubled the Minuteman ICBMs' potential to damage hardened targets, and reliability upgrades have extended their service life well into the 1990s. Modifications to our B-52s have improved their weapon delivery accuracy threefold and extended the life expectancy of the airframe.

C3

An essential link uniting U.S. strategic forces is the ability to communicate positively with and control those forces prior to and during a nuclear exchange. Your continued support for programs to modernize nuclear command and control is absolutely critical. Specifically, MILSTAR, the Groundwave Emergency Network, Miniature Receive Terminals, and ICBM launch control center Super High Frequency Receivers are vital to launch, execute, and manage our strategic forces. The emphasis must be on execution survivability rather than immortality.

INTELLIGENCE

Intelligence remains a major force multiplier. Initial efforts to increase readiness and combat capability have increased SAC's ability to support any type of conflict. SAC requires the ability to obtain and disseminate vital information in minimal time while current capabilities require days or hours. The required capabilities are planned to be interoperable with other Services and DoD systems, increasing the usefulness and cost effectiveness of those intelligence assets. These capabilities are needed today for timely warning and to prosecute a war if necessary. Additionally, they will be increasingly essential in a world of expanding arms control agreements.

CONVENTIONAL DETERRENCE--THE B-52G

Deterrence of conventional conflict and keeping the nuclear threshold high are also very important. To that end, I have dedicated the non-cruise missile carrying B-52Gs to the conventional mission. The airplanes are capable and constitute a "bought and paid for" national asset. SAC is fully committed to the conventional bomber mission. We are working hard to improve tactics, procedures, training, and warfighting capability in support of theater commander requirements. However, fiscal realities have already forced retirement of two squadrons with this important warfighting capability. We are down to an absolute minimum--33 aircraft--dedicated to what I see will be an even more important capability in the 1990s.

WHAT ELSE WE NEED

Simply put, the U.S. needs the ability to maintain deterrence. To deter potential aggressors, America must have a robust combat capability which is made up of two essential components: Quality people and quality weapon systems.

QUALITY PEOPLE

Highly capable forces with motivated people are key to a strong U.S. nuclear deterrent. Defense cuts must not be at the expense of readiness or "personnel support" programs. Personnel reductions will be required, but the people who remain with us must feel the nation values their dedicated contribution to national defense. People programs continue to erode. Erosion of the personnel support system will ultimately impact readiness and SAC's combat capability as seasoned expertise is lost. Years of experience essential to sustain the career force in the outyears cannot be replaced--it must be grown and nurtured. The time to restore our people's confidence is now--before we relive the history of the late 1970s.

I continue to be concerned about the future ability of our MWR activities to meet the physical and mental well-being of SAC personnel and their families. I fully support the goal that the mission sustaining MWR programs be fully supported with appropriated funds; yet in SAC, I need a further $15 million just for basic mission support MWR programs.

The Military Child Care Act brings higher standards of care at stabilized cost to patrons; but again, the budget lags behind the timetable.

The dollar cost to our officer and NCO club patrons to meet self-sufficiency will be impossible to meet in many cases. Therefore, some of these clubs will be forced to close on many bases and the intangible cost to traditional military values of morale and esprit de corps will be severe. You will hear much more this coming year as these clubs go bankrupt and are forced to close. The troops simply do not and will not understand why this benefit, which was implicit when they joined the Air Force, is being taken away from them.

SAC AND THE FUTURE

The U.S. must remain focused on certain fundamentals. First, nuclear stability and deterrence remains the best strategy to prevent conflict. Second, a credible nuclear deterrent requires a balanced, modernized Triad of flexible strategic forces. The priorities for SAC forces are clear--the B-2 bomber and ICBM mobility through Peacekeeper Rail Garrison and the Small ICBM. Third, conventional deterrence can be enhanced by leveraging existing investments in the remaining B-52Gs to realize significant, low cost gains in conventional warfighting. Finally, there must be a commitment to provide an equitable standard of living and "way of life" for our people. No matter how modern the front line systems become, they are hollow without dedicated, motivated, and experienced warriors.

The U.S. must stay on a measured path. First, realize the promise of arms control to reduce the threat in a tangible, mutual, verifiable, and stable manner. Second, retain a balanced, modernized Triad of flexible strategic forces as the only way to optimize the interplay of the realities all must live with and the uncertainties no one can predict. Third, maintain a sufficiently high state of readiness that any potential opponent will always regard the cost of going to war as unthinkably high.

The importance of a strong strategic nuclear deterrent is as important to the country's future as it has been to its past. The Strategic Air Command remains committed to providing the nation the forces needed to fulfill this first and most basic security task.

COMMENTS BY THE CHAIRMAN

Senator **Inouye**. Thank you very much, General.

Before I proceed with my questions, I would like to point out that the opening statement was very carefully crafted to reflect what I consider to be the majority consensus posture in the U.S. Senate. It does not represent my position necessarily.

The days and weeks and months ahead of us, especially for members on this subcommittee, will be challenging ones, to say the least, because, to a great extent, we would be called upon to serve as your advocates, if such be the case. Now, with the major aircraft review, for example, that would result in the production unit cost of the B-2 coming up in excess of $800 million, as contrasted to about $540 million before the review. That is going to be picked on by those who want to cut further, and for the man on the street or the woman on the street, $815 million per copy is something that very few Americans might be able to buy.

In addition to this, the Budget Committee reached a decision yesterday which would reduce authority by $30 billion and outlays by $13 billion. That is from the baseline of this present fiscal year. For the present request submitted by President Bush it would mean about $10 billion in outlay reduction.

Now these are huge amounts, and we know, all of us here know, that the major targets will be in those areas that come under your concern and jurisdiction. Therefore, we would need our tools to be able to represent what I consider to be an objective picture of what is happening today in this world. This is a top secret executive session. Can you first of all clean up your statement to make it declassified?

Mr. **Wolfowitz**. Yes; we can do that very quickly, Senator.

Senator **Inouye**. You have a lot there that many of us can use in our statements. Having served on the Intelligence Committee, and especially as chairman, I get a little gun shy when I make statements, not knowing when I am crossing the line or not, and I want to make certain that if I am going to quote your numbers and predictions I am doing so without violating our classification laws.

Mr. **Wolfowitz**. I appreciate that. We will get it done by the end of the day, Senator.

Senator **Inouye**. Can you do the same thing with your statement, sir, the full statement especially? It would be extremely helpful.

General **Chain**. Yes, sir.

Senator **DeConcini**. Mr. Chairman, may I just ask, can we have those sanitized statements delivered to our offices when they are finished, tomorrow morning or something?

Mr. **Wolfowitz**. Senator, I have been informed that we beat you to the punch. We cleaned it up last night. Mine is unclassified.

General **Chain**. Mine is unclassified also, sir.

Mr. **Wolfowitz**. There was a bit on arms control in my last previous draft that we had to clean up to satisfy the White House, but it is apparently unclassified now.

COST OF B-2 BOMBER

Senator **Inouye**. Is it correct that the unit cost of the B-2 will be $815 million now, under the recommendations of the major aircraft review?

I would like to know what the flyaway will be also.

Mr. **Wolfowitz**. Obviously we think it is the acquisition that is the relevant cost.

Senator **Inouye**. But the opponents of the B-2 will not touch the flyaway. They will come out with the program cost.

Mr. **Wolfowitz**. I know. Per aircraft, we would be looking, with the new program, at $815 million if you take the cost of the whole program over the 75 aircraft. Acquisition cost, though, which we think is the relevant one to look at, is $461 million. That latter is an increase from $372 million for the previous program. It is an increase in acquisition cost, but only about a 24-percent increase.

I think the real point is, in a sense, to turn the argument around the other way, Senator. We have already sunk a great deal of money into this technology and into this program. It is money——

Senator **Inouye**. What is it, $23 billion now?

Mr. **Wolfowitz**. The sunk cost is now $26.5 billion. That is money that is already spent, and if we cancel the program now we will have the most expensive 15 aircraft in the world that are good for essentially nothing. If we want to look at sticker shock, look at the cost of the force if you cancel the program now.

That money is money that we can get a good return on if we go ahead and deploy a credible force, one that continues to stress Soviet air defenses, continues to make them convinced that they cannot defeat our penetrating force.

I am afraid, in fact, that if we go the other way, if we cancel the B-2, we create additional incentives for them to work on the remaining part of the air-breathing problem, the standoff cruise missile capability. And in the end we may find that investment goes down the tube also.

I think we are talking about a decision here that really concerns the future of the air-breathing leg of the Triad, and that is the leg that we have long considered to be the most stabilizing and the most flexible part of the Triad. It is the only part of our force that the President can launch and still recall.

We went to great lengths as we developed the initial START position to try to protect this force and, in fact, succeeded in getting negotiation rules that would allow us to maintain a viable air-breathing force in the face of Soviet air defense. And it would be a tragedy, I think, if we now say because of some sticker shock that we are going to turn away from that and make a historic decision to put the penetrating bomber force on the road to extinction.

CINCSAC ON B-2

Senator **Inouye**. General Chain, in the past you have indicated that you support the 132 B-2's for military reasons and for your support of the START Treaty. Is that your position at this moment? Or do you support the Secretary's decision?

General **Chain**. We participated in the Secretary's deliberations, sir, and because of the changes in Eastern Europe and, thereby, the changes in the basic target base, I can support the Secretary's position of 75 B-2's.

Senator **Inouye**. General, we understand that you have said: If faced with a priority decision between certain strategic programs you would choose the B-2 over the MX rail garrison or the small ICBM. What is the rationale for this? Or is that still your position?

General **Chain**. It is, sir. It is definitely my position, for two primary reasons. The first reason, when we look at combat capability we have about $28 billion to go in the B-2 program. With $28 billion we produce 75 B-2's. That gives me a delivery weapons count of about 1,100 weapons. For about $25 billion we can produce 500 small ICBM's, and so that is within relative cost. So on the one hand I get 500 additional weapons with small ICBM's versus 1,100 with the B-2 and we are talking about $4.9 billion to go in rail garrison, but there is no increase in combat capability.

As I said in my statement, I think that the way that one needs to look at these forces is in three distinctive periods—the deterrent period, the crisis period, and the warfighting period. During the deterrent period, as the Soviet planner looks at the United States and sees our force structure, that is what deters him, not how many but what can that particular force and the combination of the forces do in conducting a retaliatory strike.

The strength of the bomber is, as Secretary Wolfowitz pointed out, one of its principal strengths is the stabilizing. It cannot conduct a first strike and, therefore, the arms control agreements have been crafted around support of bomber forces and to control the more destabilizing forces, which are the fast-flyers—the ICBM's and the SLBM's—and that is why there is a finite cap on SLBM's and ICBM's.

So I think that in the arms control world there is great utility for the bomber. So during the deterrent period I have and we are planning to have [deleted] on alert, so we have a large number of weapons, if you would, on alert day to day. And as the Soviet planner looks at that force, that is a strong deterrent force.

During a crisis period, we have the option of dispersing them to other bases. We have the option of putting them airborne. We have the option of actually taking them off and proceeding toward a go/no-go line on a map beyond which they cannot go without Presidential release. So they give great flexibility to the President during a crisis period.

And then during the warfighting period, the bomber, the penetrating bomber, can hold at risk all targets within the Soviet Union except those targets that need to be hit quickly. It is also the only system that has the ability to be able to hold at risk the emerging relocatable targets which we see the Soviets going more and more toward.

So in each category—deterrent, crisis, and warfighting—the bomber gives me the most combat capability.

MX VERSUS SMALL ICBM

Senator **Inouye**. The Chairman of the Joint Chiefs recently stated that, given a choice between the MX rail garrison and the small ICBM, he would take the MX rail garrison. Do you agree with that?

General CHAIN. I do, sir, for one reason only, and that is because of money. If money was no object, I would obviously prefer the small ICBM because of the flexibility. But we are talking about $4.9 billion versus $25 billion, and in today's fiscally constrained world I do not know where the hell we are going to get $25 billion for 500 warheads.

Senator INOUYE. I have many more questions. I will come back again.

Senator Stevens.

STATUS OF D-5 MISSILE

Senator STEVENS. Thank you.

Mr. Secretary, could you bring us up to date on the D-5 missile?

Mr. WOLFOWITZ. Senator, I think we have solved the problems that turned up in those first D-5 tests, and the U.S.S. *Tennessee* is now undergoing sea trials with the D-5 deployed. We think that system is working well now.

Senator STEVENS. Will the shortfall of warheads at all prevent the full deployment of the Trident, the third Trident, if the D-5 does prove out?

Mr. WOLFOWITZ. Secretary Watkins, I believe, announced just today or yesterday that they expect to get Rocky Flats back in operation, I think in June or July, which I think should, in fact——

Senator STEVENS. Well, let us assume it does not happen. It has been delayed before. Are we going to be able to go out with a third Trident if Rocky Flats is not restarted?

Mr. WOLFOWITZ. If we do not get the restart by July, it would be a problem, Senator. But we expect we will have the restart. We expect that we will be able to go ahead. In any case, I think we will eventually get that production underway.

Senator STEVENS. We had an indication that if it did not get restarted that you would just deploy the first three Tridents. Is that right?

Mr. WOLFOWITZ. The first three with D-5's? That is what I think we would have to do, Senator; yes.

Senator STEVENS. It was not my idea, but the committe approved last year the concept that the B-1 be tested with the ACM before continuing production on the ACM. The Department has not done that. Can you tell me if that priority of this committee will be complied with in this fiscal year?

Mr. WOLFOWITZ. I can tell you we have been wrestling with how to comply with it, Senator. One of our concerns has been the question of how START is going to treat the issue of air-launched cruise missiles. There has been a lot of concern about doing a test that would end up capturing the B-1 as an ALCM carrier under START before it is actually deployed as an ALCM carrier.

We decided, after the success in the February talks, that maybe it looked as though we did not have to worry about that particular problem any more. We are a little less confident of that, given some of the difficulties that we ran into in Washington last month with the Soviets. That is one of the considerations that is right now being considered by Mr. Betti and by Secretary Cheney.

We are very conscious of the committee's direction in this matter. I know we will be getting back to you, I hope fairly soon, with what we plan to do.

B-1 TESTING

Senator STEVENS. Well, we did test the B-1 with the ALCM. How does the testing of the ACM differ from testing with the ALCM so that it might somehow taint the B-1? If the B-1 is to be tainted in ALCM consideration, it is already tainted, is it not?

Mr. WOLFOWITZ. Let me emphasize our START position, which we hope to achieve, will make this a nonproblem. But when we are in the middle of a negotiation with the Soviets, who are being as difficult as they are and pushing rules that we are not sure about, we just had an uneasiness about how that might come out. I think it will turn into a nonproblem.

The other question is simply at what time do you make this kind of investment, in relation to when you actually expect to deploy the bomber with the standoff capability. I am not trying to exaggerate the arms control problem; it is just we felt it would be good to have it pinned down before we decide exactly what we do.

Senator STEVENS. Well, having followed that arms control negotiation rather closely, as some of us have and I have, I do not see the arms control problem that you see. That is the problem. We would like to explore that with you. It does have a difference, I think, in how we handle the overall approach to our budget. But I do not want to belabor that.

Mr. WOLFOWITZ. I do not want to belabor the arms control part of it either. I think it will be a nonproblem. But there has been reason to be nervous about it.

BOMBER FORCE STRUCTURE

Senator STEVENS. General, I do not want to prolong this. I have got one ear that is not working. For some reason I seem to have destabilized myself this morning.

But we had a projected force structure for bombers. It is classified, but this is a classified hearing. With the change in the B-2 procurement, can you tell me have you made a decision on what that will mean in terms of the bomber force as far as the B-52's, as far as the phaseout of the FB-111's? Has that chart been redone now?

General CHAIN. I am not familiar with it. I cannot see that far, sir.

Senator STEVENS. As we get older, our arms have to get longer, General. That is all. That postulated a B-2 force substantially greater than the maximum potential now under the new decision. What does that mean with regard to the other aircraft, or are we really going to just totally scale down the manned aircraft force of the other bombers?

General CHAIN. Basically the chart, as you see it, is the way it is going to probably come out, with the exception of the bottom line where it has the B–2 going up to 120 penetrators. The B–2 will only now go up to about 68 penetrators.

But the FB's are being transferred at this time to the Tactical Air Command. The G's have been moved into the standoff position. The H's are penetrators and shooting penetrators that in a few years will have to be moved into a standoff position only because of the increasing Soviet defenses, and the B–1 will remain a penetrator into the outyears, and the B–2 will be a penetrator.

Senator **Stevens**. Will you change the numbers in terms of the support force at all, as far as the support force for the B–2's? You assume you only have 75 maximum. Are the others going to be retained longer?

General **Chain**. No, sir; they will end up being phased out. We will not be changing the numbers.

Senator **Stevens**. Well, I have some other questions, Mr. Chairman, but I do not want to belabor mine now. Thank you very much, General.

Senator **Inouye**. Thank you.

Senator Kasten.

Senator **Kasten**. Mr. Chairman, thank you.

STATUS OF NEGOTIATIONS

Mr. Secretary, three times this morning you have referred to the difficulties in the recent negotiations, with the Soviets backing off from their position with regard to both the sea- and air-launched missiles. Would you just describe briefly, just summarize, where we were in February, the changes that took place in this last round, and what you anticipate and what the administration anticipates we are dealing with as we work toward the end of this month?

Mr. **Wolfowitz**. I can try to do it without getting into all the details of the negotiations, Senator.

We basically felt, coming out of Moscow, that we had agreement on all air-launched cruise missile issues, with the exception of range, where the question was, what would be the range limit that would define a strategic air-launched cruise missile? The Soviets were saying 600 kilometers; we were saying a much higher number.

With respect to submarine-launched cruise missiles, we had a general agreement on handling it outside of the treaty, with kind of a confidence-building statement of what each side planned to do, and we thought there were two areas of disagreement there. One was over range and the other one was over whether these statements would cover conventional sea-launched cruise missiles or only nuclear-armed ones.

So we thought we were down to one major difference on ALCM's and two differences on SLCM's. The Soviets came into Washington with what we felt was reopening a number of rather important issues regarding both subjects, [deleted].

I do not know—one can speculate until the cows come home—why these changes in position took place. I think there is more than one reason. I think there is some real disarray on their side, but I also think we should not be surprised just because the Soviets have not negotiated like Soviets for the last year or so, when they revert to type from time to time.

A number of us felt this was deja vu all over again, so to speak.

VALUE OF RAIL GARRISON

Senator **Kasten**. General, we covered this a little bit, but I just want to talk about the rail-mobile system just for a moment. The Soviets already have one, but it is clear that funding for this system for us this year is already running into a lot of congressional concern, a lot of congressional scrutiny both because of the cost and also because of the reduced Soviet threat.

Why could we not delay building the rail-mobile system?

General **Chain**. Sir, I refer to what I said just a few moments ago when I talked about the B-2 and its value. I think again you need to look at the mobile ICBM systems in three distinctive timeframes. During a deterrent period, which we are in today, day to day, I am very comfortable with missiles in silos. There is no way that a Soviet planner could think that they could strike the United States, bolt out of the blue, and that the President of the United States would not retaliate very quickly and have those missiles out on the way to the Soviet Union.

The same thing is true during the warfighting period. If the United States, after a period of crisis, ended up in conflict and going to nuclear war, the same thing would be true. We can use the missiles coming out of silos very well.

The value of the mobile system is during time of crisis. It offers the President of the United States the option to move those missiles out of the garrison and out on the rails, which is a very defensive motion. We had a group of Soviets out at SAC a couple of months ago and they were trying to make that point with their mobile systems, saying they are defensive in nature—and I agreed with them. I think it is something that is almost like an insurance policy for the country.

We have about $4.7 billion to $4.9 billion to go on rail garrison, and I think it would be very healthy for the country to have that. I think it would increase our capability to continue to deter war in the future, as we have in the past.

Senator **Kasten**. Mr. Chairman, thank you.

Senator **Inouye**. Thank you.

Senator Specter.

Senator **Specter**. Thank you, Mr. Chairman.

SOVIET STRATEGIC MODERNIZATION

Secretary Wolfowitz, you made a comment about the Soviet acquisitions last year of missiles and bombers, contrasted with ours. We heard in closed session from Director Webster last week, and, without getting into the specifics, there was a conclusion that the Soviets are reducing even in the strategic field. My question to you is, Do you think that the Soviets are not now reducing in the strategic field so that we have to keep the buildup going to stay at a par with them?

Mr. **Wolfowitz**. I think there are two points to make. Their reductions in strategic forces are quite modest. This year is the first time in 25 years that we have seen an overall reduction in Soviet defense spending, and it is there and it is gratifying to see. I would also emphasize that this reduction comes after 25 years of continuing increases. When they cut their tank production in half, which was extremely welcome and which was the single biggest expenditure reduction, it is also worth bearing in mind that one-half of their production was still twice all of NATO's put together, and we have been cutting our tank production more rapidly.

So I just say that as background. I think it is also the case—and I think Judge Webster's testimony was clear on this—that the biggest reductions have been in conventional forces. The ones in strategic forces have been relatively modest, [deleted]. It may be an indication of a lower commitment to the program; it may also just be an indication of fact of life production problems.

And we see some clear indications that they are not modernizing those silos that we would anticipate would be eliminated under a START agreement. So they are beginning to tailor their forces to START.

Beyond that, we do not see much change in their strategic modernization program, and there is no inconsistency between all of that modernization that I described and the small reductions that may have been mentioned in Judge Webster's testimony. The point is, they can reduce a little bit, but there is still a lot going on there and a lot more than we are doing.

STRATEGIC VERSUS CONVENTIONAL

Senator SPECTER. Let me ask about, or let me now turn to, the comparison. I asked my staff to get the comparison, say, of some of our strategic weapons with some other weapons and also with some domestic programs, and I was frankly surprised by the facts as represented to me, which I do not vouch for 100 percent because they are surprising.

But I am told that the cost of one B-2 bomber is equivalent to procurement of 35 V-22 Ospreys or the operating and support costs for an entire carrier group. And when I take a look at the carrier groups and the V-22 Ospreys, my instinct is that we really need mobility and that kind of force projection much more than we need one more B-2 bomber. But, of course, I am not sure and I raise that question as to your thinking on the desirability of buying a B-2 as opposed to, say, 35 V-22 Ospreys.

General CHAIN. Well, let me make a comment. When the defense budget is put together, the commanders in the field submit their priority lists to the services. The services then put their budget together in a prioritized manner. It goes to the Secretary of Defense in a prioritized manner. He, with his staff, then puts those things together in a prioritized manner.

I can tell you the B-2 is not at the bottom of the priority list. The B-2 is up at the top of the priority list. So to be able to say that we could trade a B-2 off for something of less importance is a credit to your staff as far as matching moneys, but I do not think it is a valid comparison as far as what are the military priorities of this country.

I think, when the Secretary of Defense submitted his budget to the President and then over here, the B-2 was up there solid and well-supported from the military, through the Office of the Secretary of Defense, and through the President's office. So I do not think that that is where you start looking for the tradeoff, sir.

Senator SPECTER. General, I understand the priority concept, but the V-22 Osprey is not at the bottom of the list. It is off the list.

General CHAIN. I will yield on the Osprey to Secretary Wolfowitz because that is not in my domain.

Mr. WOLFOWITZ. Let me talk on the carrier question You are taking 1 year. The implication is you could have 75 aircraft carriers for the cost of 75 B-2's.

Senator SPECTER. Fourteen will do.

Mr. WOLFOWITZ. The programs are not—you cannot compare them that way. If you look at the total cost of the carrier, you are talking about buying the air wing that is on it, buying the ship, buying the escorts. I am a great believer in carriers. I think they are very valuable, and I think Secretary Cheney, when he did the major aircraft review, reflected the priority that he puts on aircraft carriers by the amount of money he decided to invest in the A-12 aircraft, to modernize just the attack portion of the aircraft carriers.

That is, I believe, a many-billion-dollar program just for the attack aircraft, not for the ship and not for the air defenses.

So we are talking about an expensive proposition there. But it is one which we decided to invest in. One place where, in fact, we did decide to assign a lower priority was the modernization of our Air Force tactical attack aircraft. That program was slipped 8 years, which some people say is tantamount to cancellation. I think there is a difference. But he certainly indicated a much higher priority for the B-2, for example, than for replacing the F-111's in Europe.

Senator SPECTER. Well, I am not going to argue the point, because it could go on and on and on. I am not sure about the conclusion. And then contrast it on the domestic programs, and just take two of them, and it just is a matter of priorities, but two B-2's would fund the entire Federal prison system of $1.7 billion and one B-2 is more than the cost of the Drug Enforcement Agency program.

I do not raise these to engage in any extended discussion. We had 20,000 homicides last year, many, many of them drug-related, and it just is kind of a tough call when we are really looking at what the threat is strategically from the Soviet Union.

STATUS OF SDI

Let me ask one other question and then I will yield to my colleagues. That is with relation to the strategic defense initiative and its ability to defend, which to my way of thinking is worth the investment more so, as I see it, than the B-2 or some of the missile systems because of my own personal evaluation of the relative unlikelihood of being called upon to engage in a response to a nuclear attack.

I would ask the question as to how far along Brilliant Pebbles are or other SDI research in order to make an evaluation as to whether in the foreseeable future we know enough to come to a conclusion that we might really be able to have a workable, deployable SDI which would provide some significant defense capability.

Senator INOUYE. Will the Senator yield? I think that question might be better addressed to General Monahan when the SDI question comes up.

Mr. WOLFOWITZ. He can get into the details. The basic thing is to try to be able to give the President the ability to make a deployment decision—whether to deploy or not and, if so, in what form—before the end of his first term. That is the goal.

It is pushing hard to get there, but that is the goal and he can tell you more about the uncertainties involved.

Senator SPECTER. Mr. Chairman, I will await further pressing on that question. Thank you.

Senator INOUYE. Senator McClure.

STRATEGIC MATERIALS

Senator MCCLURE. Thank you very much, Mr. Chairman. I will ask some questions only in one area, not because I am not interested in the others but because of the press of time. I want to return to something that Senator Stevens raised, and we got an answer, and I do not mean to be critical of the answer except it seems to me to have perhaps obscured if not missed the point.

I am talking about materials requirements for strategic weapons. Secretary Watkins has told you that he expects that Rocky Flats will open and Senator Stevens says what if it does not. I think the answer was, well, then we think we would have a problem but we do not think that is going to happen. I want to press that a little bit.

What happens if Rocky Flats does not open on schedule?

General CHAIN. Let me just throw in a comment and then let the Secretary answer. I sent a message to the Chairman of the Joint Chiefs just about a week ago on the same subject. This is not as Director of SAC but as the Director of Strategic Target Planning for the country, and my concern is what weapons we are going to have available against the target base in the outyears if it does not happen. So I just want to endorse your concern and share your concern. I think it is a major interest item for the country.

Mr. WOLFOWITZ. I appreciate your reopening this issue because I think it is an important one.

I might ask, too, Mr. Chairman, if I could just submit for the record a copy of this letter that Secretary Watkins sent to Secretary Cheney on April 30, in which he says that the new EGG management team is doing an impressive job at Rocky Flats and "I hope to be able to confirm in mid-May that operations will be resumed beginning in the second quarter of this year. I will notify you shortly with specific plans."

Senator INOUYE. Without objection, that letter will be made part of the record.

[The information follows:]

LETTER FROM ADM. JAMES D. WATKINS

The Secretary of Energy
Washington, DC 20585

April 30, 1990

The Honorable Richard B. Cheney
Secretary of Defense
The Pentagon
Washington, D.C. 20301

Dear Mr. ~~Secretary~~ Dick:

I have earlier stated my intention to announce the restart schedule for the Savannah River reactors this month. After a comprehensive briefing by both our Westinghouse contractor and senior management in the Department, I feel that the scope of the work remaining is sufficiently known to permit me to fulfill this commitment.

On May 1, 1990, during my hearing before the Senate Committee on Armed Services, I will announce that the first reactor will be ready for criticality and low power testing in December 1990, with tritium production scheduled for the following month. The second reactor is planned to restart in March, 1991, with tritium production commencing the succeeding month. In September 1991, we will follow the same procedure for the third reactor.

This schedule is predicated on completing the NEPA decision-making process for reactor operation, including the resolution of public comment on the reactor operations environmental impact statement. Other schedule uncertainties may derive from potential legal challenges to reactor operation, new issues raised by governmental oversight groups which are following the restart process closely, or unforseen technical problems that may emerge as we continue to review readiness for restart.

It is our belief that we will meet this schedule so that tritium requirements can be met. I will keep you apprised of any significant changes which may occur. Additionally, I am continuing to review preparations for the resumption of plutonium operations at our Rocky Flats plant. The new EG&G management team is doing an impressive job, and I hope to be able to confirm in mid-May that operations will be resumed beginning in the second quarter of this year. I will notify you shortly of the specific plans.

Fulfillment of DOE's commitments for the nuclear deterrence forces remains our highest priority. We will keep you informed on the status of these two critical operations. I will be in Australia representing the President for the next two weeks. Should you have any questions during that period, please contact John C. Tuck, Under Secretary.

Sincerely,

Jim

James D. Watkins
Admiral, U.S. Navy (Retired)

Mr. WOLFOWITZ. Thank you, Mr. Chairman.

Your question goes to the issue of, suppose Secretary Watkin's prediction does not work out. Let me distinguish between long term and short term. If we cannot get into production long term, we have [deleted]. We have got to get the system functioning again somehow, or we are not going to be in the deterrence business, which we have got to be able to do.

If it is a matter of delay and if it is a matter of not having the D-5 warhead ready when the boats are ready to deploy with them, I do not think it means that we would not deploy the boats. It means that we would either somehow download so that the average load on a missile would be less than the eight warheads they are supposed to carry, or that we might be forced to retire some of the Poseidons early and take some of the Trident I warheads that have been backfitted onto Poseidons and put them on D-5's. Remember, the ultimate idea is a force that will be a mix of the new D-5 warhead with the older, lighter warhead. Of course, none of these options are good options.

Senator McCLURE. But let me comment on that. If you take them off Poseidons and put them on Tridents, you do not have any more missiles.

Mr. WOLFOWITZ. No; you do not.

Senator McCLURE. You do not have any more warheads; you have just changed their location.

Mr. WOLFOWITZ. That is right. You have a more survivable, quieter system. We absolutely must solve this problem of warhead production or we are, going to have a very serious problem.

SAVANNAH RIVER

Senator McCLURE. The second question is related to that. What happens if Savannah River does not reopen on schedule?

Mr. WOLFOWITZ. Let me see if my experts can help me on that. Maybe General Chain has an answer.

General CHAIN. No; I have the same concern. I am looking forward to the answer. [Laughter.]

Mr. WOLFOWITZ. The same letter from Secretary Watkins addresses his hopes for Savannah River.

Senator McCLURE. I know.

Mr. WOLFOWITZ. That is obviously extremely critical to us also, but not for the Trident program per se.

Senator McCLURE. Not to the Trident program specifically Savannah River—and I think every member of this committee realizes it—deals with tritium production, and tritium production deals with the entire inventory of nuclear weapons, not just one system but every system.

Now I have talked to Secretary Watkins and I notice that he used the term, which is accurate, and I want to emphasize the term that he used—"hope," not expectation, not belief, not assurance, but hope.

I want to emphasize one other thing, and this is a very sensitive issue area that I even hesitate to discuss but I think we must discuss it. I have with Secretary Watkins, I have with the President of the United States—the last President and this President. And that is the question of what happens with respect to materials requirements.

I have watched those materials requirements very carefully for several years. Secretary Watkins threw away the cushion, the margin of error, the margin of comfort by saying that is only a margin of comfort that we do not need and took it out. And when you look at the charts of materials requirements, with no margin of error, and then to recognize the fragility of the expectation that either Rocky Flats or Savannah River will open on time, you are facing the absolute, predictable event of the President of the United States being asked to do one of two things—compromise U.S. security by allowing weapons to stand down, or asking the American public to accept a decision for national security that says operate those plants without the necessary safety margins.

Now put yourself in the shoes of the President of the United States who has to make that decision. Now that is where we are. We can kid ourselves all we want. The Secretary of Energy does not know that plant will open in July, and he does not know that Savannah River will open on schedule. And the Senator from Idaho does not know that either.

But I can tell you there are a lot of people out there that do not intend either one of them to open, and the people that do not intend that they should open have a lot of tools at their disposal, not the least of which is the courts of the United States.

Now the President of the United States is going to have to make a security waiver decision, I predict. I may be wrong, but I think that prediction is more accurate and more certain than the hope expressed by the Secretary of the Department of Energy. He is a friend of mine. I think he has an absolutely impossible task and he is laboring heroically to try to meet it. But we are in critical condition on materials supplies and the systems that have to be operated in order to use those materials when they get into the weapons production phase.

I am extremely concerned. I do not see this level of concern being mirrored in the administration, partly because you have a division between DOE and DOD on this issue. DOD's responsibility is to tell DOE what you need. DOE's responsibility is to furnish it. But DOE does not face the consequences in military preparedness that DOD has to, and I think there is in that division of authority—and I do not quarrel about that division of authority and responsibility—I think we lose some of the sense of urgency and some of the feeling of what will happen if Rocky Flats does not open and certainly Trident is the first but not the only impact of that event.

The second is, what happens if Savannah River does not open. I have been saying for years that we had problems at Savannah River. I have not been able to get anybody to listen to me until it got into the newspapers, and I tried desperately to keep it out of the newspapers. I think we have a much more urgent situation than I see being expressed to us by the administration and/or the Department of Defense.

I know that puts you in an awkward position of putting pressure, public pressure on the Secretary of the Department of Energy. As I said, I think he is doing a heck of a job. He has got a terrible problem to deal with. But unless you appear before committees of the

Congress and say, hey, DOE is not helping us with a problem—although that is not quite fair—DOE's failure to accomplish what they must accomplish has severe repercussions on the strategic preparedness and posture of this country. I do not hear that being said.

That is the reason I went back to it after the answer that Senator Stevens got. The question was a good one, the response was accurate, but it did not tell us anything.

Would you care to comment, Mr. Secretary?

Mr. WOLFOWITZ. I would agree with you, Senator, that the repercussions are potentially very severe and everything that we are talking about in terms of modernization would be useless if we cannot build the weapons to put on those systems. I hope there is not a problem of lack of sense of urgency because of the division of responsibility that you describe. I certainly know the Secretary of Defense himself is very deeply concerned about this matter.

Maybe part of the problem is the difficulty of discussing this subject in public. There are some dangers in sounding alarmist publicly, but it is an alarming situation.

Senator MCCLURE. Say it is alarming here, then. Volunteer the opportunity to say it is alarming. Do not be forced into saying it.

Mr. WOLFOWITZ. I take your point, Senator.

Senator MCCLURE. General Chain, do you have any comment?

General CHAIN. I just reendorse what you have said completely.

Senator MCCLURE. Thank you.

Thank you, Mr. Chairman.

STATUS OF TRANSFER

Senator INOUYE. Senator McClure, I think we can remind ourselves that because of your compelling arguments we transferred, under the 301(b) program, $150 million to Energy just to facilitate the reopening of Savannah River. I just wanted the administration to know that we take this matter very, very seriously.

What is happening to the $150 million? Do you have an idea?

Mr. WOLFOWITZ. I do not know. We will get you an answer right away, Senator.

Senator INOUYE. I appreciate that, sir.

[The information follows:]

REPROGRAMMING FUNDS TO ENERGY

The Department of Energy required an additional $233 million in fiscal year 1990 to facilitate the restart of the production reactors at the Savannah River site. The agreement made last summer between Secretary Cheney and Secretary Watkins was that DOD would furnish $135 million in funds toward the restart activities and the remainder ($98 million) would come from DOE sources.

Of the $135 million, DOD has transferred $126.6 million to Energy. Congressional concerns over funding sources prevented the transfer of the remaining $8.4 million. We are reviewing alternate funding sources to satisfy these concerns in order to complete the balance of the transfer to DOE.

Meanwhile, the Department of Energy has indicated to us that they have not allocated any of these funds against specific functions or line items. They have said that these funds will be applied against the total requirements for fiscal year 1990 sometime in the future.

RESULTS OF NEGOTIATIONS

Senator Inouye. Senator Bumpers.

Senator Bumpers. Thank you, Mr. Chairman.

Mr. Secretary, on page 2 of your testimony you describe the robust modernization program in the Soviet Union and you set out with some specificity what they are doing. But as a member of the Arms Control Observer Group just recently in Geneva our negotiators there tell us that the Soviets have yielded on roughly 9 out of every 10 issues that have come up, and if the treaty were signed today, under the tentative agreement we would have about 11,500 warheads and the Soviets would have to cut back to about 7,700.

What do you make of that?

Mr. Wolfowitz. There are two different statements there. As to the impression that the Soviets are yielding on everything in arms control, I do not know who gave you that impression, Senator. It does not square with what I have been seeing.

Senator Bumpers. Well, I will be happy to tell you after this meeting is over. I do not want to incriminate anybody.

Mr. Wolfowitz. Well, you know, it's like the blind men and the elephant. People get differing pieces of the picture. There are a lot of small issues that are being negotiated in Geneva and, depending on how you count them, it may look like 9 out of 10.

The fact is, as I discussed I think before you came in, this is what we have seen on what seemed to us to be sort of the major issues: on ALCM's and SLCM's, where we thought we had gotten close to agreement in January, we found the Soviets, under very obvious pressure from their military, backtracking on all kinds of things that they had previously agreed. What they are pushing for there, I would submit, are constraints on our ability to penetrate Soviet air defenses when they would accept no constraints on air defenses. They would not even think of it.

They are pressing for constraints on our sea-launched cruise missile. They refuse to discuss any limitations on their Backfire bomber, which is in some ways a similar category of system. We have made no progress with them on the issue of heavy missiles since the initial agreement to cut them by 50 percent, which is important, but which was about 2 years ago.

So on the big issues my impression of the last 3 or 4 months is that we have made some significant moves ourselves. We thought those were reciprocated by the Soviets, and they backtracked. So I have not seen the concessions you describe. I do not mean to say it is all going the other way, but the impression that they are caving everywhere, that is ~~not the~~ way it looks to me.

In fact, not just speaking for myself, I think there is a higher level of concern in the administration that indeed the last couple of months may have seen a strengthened Soviet military role that is toughening up their position.

The other question you asked was about the relative levels of forces coming out of an agreement. Different people can come up with different numbers because it depends on how you chose to structure your force. The Soviets can deploy as many warheads under this agreement as we can, if they choose to. We have opted for a heavy reliance on a bomber force because we believe it has a lot of advantages, including being more stabilizing.

The agreement allows you to have more warheads in bombers, and one of the main reasons for that, frankly, Senator, is because the agreement does nothing to constrain defenses against bombers, which the Soviets, as you know, have plenty of, while we have almost none. So if you look at the overall balance of which side can deliver how many warheads, I would say coming out of this agreement, you are going to have something that is really very close to equal. That is what we have been negotiating about all the time.

Senator **BUMPERS**. Well, at the rate we are going, if that is true, both sides will have more warheads when the treaty is concluded than they had when they started negotiating. Do you think that is a desirable goal?

And we are saying we do not want to enter into START II talks for 2 more years.

Mr. **WOLFOWITZ**. The thing that we have been after in this agreement most of all is a reduction in ballistic missile warheads, the fast fliers that we consider to be more destabilizing, and both sides will be down significantly in ballistic missile warheads under this agreement.

Senator **BUMPERS**. That is true in ballistic missile warheads.

Mr. **WOLFOWITZ**. And that has been what we have been after, principally. I believe also that you can take this from whatever point you like. If you take it from when we began negotiating, you get one result. If you take it from where we were 4 or 5 years ago, I believe both sides will have to go down considerably from that.

Whether we can go down more in the future, I think probably we can, but that is something we really need to think through very clearly.

SUBMARINE STATUS

Senator **BUMPERS**. Mr. Secretary, how many Poseidons do we have right now?

Mr. **WOLFOWITZ**. Poseidon boats or Poseidon——

Senator **BUMPERS**. Submarines.

Mr. **WOLFOWITZ**. Twelve.

Senator **BUMPERS**. And when will the last of those be phased out in the current plans?

Mr. **WOLFOWITZ**. Excuse me. We have 11 Poseidons equipped with Poseidon C-3 missiles and 12 more Poseidon boats equipped with the Trident I C-4 missiles.

Senator **BUMPERS**. We just have 23?

Mr. **WOLFOWITZ**. Yes.

Senator **BUMPERS**. When will the last of those be phased out under current plans, under the current life expectancy of those boats?

Mr. **WOLFOWITZ**. The last Poseidon submarine goes out in 1998.

Senator **BUMPERS**. Now we are in the process of buying long-lead items for the 21st Trident and the Pentagon, in its 5-year plan, shows something like 25, I believe it is, the 24 or 25 that they intend—I am corrected. My staff says we are buying long-lead items for the 20th Trident.

But I believe the 5-year Pentagon plan calls for 24 or 25 Tridents. I happen to be a strong proponent of the Triad, and I think that is by far the best part of the Triad, for that matter, but I am troubled a little bit about the cost of Tridents and the way we continue to build them. If we are really serious in the START talks and also serious about maintaining our Triad, in short, we are going to wind up, if we have the normal number of warheads on the sea-based portion of the Triad, we are going to wind up dismantling 15- and 16-year-old Trident submarines if we are not very careful.

Do you think that is a fair statement?

Mr. **Wolfowitz**. I do not believe that will happen under START I, Senator. If you are talking about——

Senator **Bumpers**. I do not think it is going to happen under START I either. I do not think much of anything is going to happen under START I, frankly. A year ago I was very optimistic, but right now I am not.

Mr. **Wolfowitz**. I think we will, in fact, have overall missile RV numbers down significantly under START I, but we will, in fact, be able to deploy a full Trident force.

I think what your question is getting at is, if we go to reductions beyond START I, is that going to mean that we are going to start retiring early boats that have this kind of investment in them? It is speculative to say what we will do beyond START I, but it seems to me that the goal beyond START I should not be to reduce the number of launch platforms and certainly not the number of boats, but, rather, the number of warheads overall.

Reductions should come in the offensive capability of the force, not in the survivability end. There are various ways of getting at that, but I think the basic principle would be to try to get reductions while preserving the number of boats that we have.

Senator **Bumpers**. Let me tell you the point I am trying to make. That is, that if we wind up either in START I or START II as we originally talked about—for example, 4,900 ballistic ICBM warheads—then you are not going to have any room left for General Chain or anybody else because the submarines are going to take up all those warheads, if we deploy eight warheads per Trident. And we have 24 of them. You have no room left for any land based.

I am not saying that is all bad. I think we ought to be moving away from MIRV's. I think the first transition ought to be moving away from land-based MIRV'ed missiles. But what I am saying is you are going to wind up with everything on submarines if you are not careful and that troubles me.

That is just a comment.

Mr. **Wolfowitz**. I take your comment, Senator. One comment I would make in response, is that what that points you toward is not only the idea of getting out of land-based MIRV's, as you suggest, but I think also at possible ways of downloading the number of RV's on a Trident missile, or conceivably even the number of missiles on the boats.

But what we are after in that force is its survivability. There is room for a lot of change in how many warheads it actually carries, but what we do not want to do is give up the survivability of that force.

MIRV MISSILES

Senator **Bumpers**. What would your response be if they offered us a proposition at Geneva to, say, let us start right now and eliminate under this treaty all land-based MIRV'ed missiles?

Mr. **Wolfowitz**. If they said to eliminate all land-based MIRV'ed missiles, we would grab it.

Senator **Bumpers**. What if they were to say, simply because they put so much confidence in their SS-18's—and that is the missile system I would like to see them dismantle, and you would too—we will dismantle our MIRV'ed missiles in exchange for your MX and so many SLBM's on submarines—just sort of an equal number? How would you feel about that?

Mr. **Wolfowitz**. We are getting beyond what I can express personal feelings about. What I would feel is that there is no logic to that, that the submarine-based force is a stabilizing force, and that we ought to keep it. We should not get into the habit of saying that just because a system is MIRV'ed it is a problem. The problem is with land-based MIRV's and that is what we ought to go after.

ADVANCE WARNING

Senator **Bumpers**. Mr. Secretary, how many—well, General Chain, let me turn to you. Do you believe in the bolt out of the blue?

General **Chain**. No, sir; I do not. The reason I do not is because of the number of weapons systems and the diversified part of the Triad that are on alert today; and the United States has a history of Presidents making tough decisions when they have to. So if I was a Soviet planner there is no way that I could conduct a bolt out of the blue and think that I could get away with it.

Senator **Bumpers**. Could we?

General **Chain**. No; because the number of weapons systems that they have [deleted.]

But their ICBM fleet which, as you know, is substantial, with over 6,000 ICBM warheads, we could not take that out before they could retaliate. So there is no way that we could conduct a bolt out of the blue.

Senator **Bumpers**. My question is not whether they could launch on warning. My question is, Could we launch without them knowing we were prepared to launch?

General **Chain**. Yes; in that the submarines at sea are not visible, so the first indication is when they broke water and their satellites picked them up. Our ICBM's would be out of the silos before they could pick them up. You cannot use a bomber to conduct a bolt out of the blue because of the flying time. So the only thing that they would see coming would be ICBM's and SLBM's, and that is why arms control, as you know, has tried to contain and restrain the most destabilizing systems, which are ICBM's and SLBM's.

Senator **Bumpers**. Could the Soviets do that? Could the Soviets launch without us knowing it, then?

General **Chain**. No; we have satellites up there and they would pick them up as soon as they came out of the silo.

Senator BUMPERS. I am not talking, General, about whether we are going to know they have launched. I am talking about the preparation time.

General CHAIN. If I were a Soviet planner, I would not want to launch a bolt-out-of-the-blue attack against the United States without posturing my force. As I say, [deleted]. That is [deleted] submarines to go. I do not believe if I was a Soviet planner that I would leave [deleted] of my submarines sitting there as sitting ducks, knowing that we have them targeted. I do not believe if I was a Soviet that I would leave all my bombers sitting on a ramp and not do anything about it.

Senator BUMPERS. Are you suggesting they could not alert all of them without you knowing it?

General CHAIN. That is right.

Mr. WOLFOWITZ. A bolt-out-of-the-blue attack, Senator, would mean they would be launching a fraction of their force, and that is what makes it not a very——

Senator BUMPERS. And you are saying it is impossible?

General CHAIN. No; nothing is impossible, but it is highly improbable because we would see it when they generate and if I were a Soviet planner I certainly would not launch an attack without generating my forces. It would not make any sense.

Senator BUMPERS. Well, let me just say I am not an expert on this, but I consider Paul Nitze an expert and he believes very strongly that a bolt out of the blue is possible. There is not any point in us debating this any further. You know what you know and you know what you feel.

I do not know. But I have just been curious about that. Let me ask you this.

Mr. WOLFOWITZ. Senator, no one says that it is not possible for them to do a bolt out of the blue with a fraction of their force. I do not think Paul Nitze, on the other hand, would say they can do a bolt out of the blue with their entire force. The question is, how threatening is that limited attack that they can launch without alerting us by prior measures.

We have ability to deter that. A bolt-out-of-the-blue attack is not going to eliminate our entire force, and that is one of the reasons we do not think they would do it.

Senator BUMPERS. But people act in irrational ways, Mr. Secretary. We are not talking about somebody that feels the same way about how much of his force is ready to go and so on. As General Chain says, he is a very rational, reasonable thinker. But that does not mean the guy on the other side is.

Mr. WOLFOWITZ. That is right, but if he wants to have the kind of force available to him that would give him, for example, the ability to really strike all of our ICBM silos and all of our military targets and leave him something left over, he is going to have to alert his forces and we will get warning of that.

If he goes with a more limited force, his military objectives will be much more limited in what he can accomplish.

Senator BUMPERS. Well, it just seems to me that, as I say, I am not an expert on this and I sort of defer to people like Paul Nitze. It seems to me like somebody might be willing to launch one-third of his forces on the assumption that we would not launch on warning, knowing full well that he would have time to launch the rest of them if we retaliated. And that is one of the things we worry about most, is it not, being held hostage?

General CHAIN. That is why we have the number of weapons systems we have today on alert.

MX RAIL GARRISON

Senator BUMPERS. General, let me ask you how many trains are going to be in a rail-mobile garrison?

General CHAIN. Four.

Senator BUMPERS. Two missiles per train?

General CHAIN. Yes.

Senator BUMPERS. Eight missiles?

General CHAIN. Yes.

Senator BUMPERS. Eighty warheads?

General CHAIN. Right.

Senator BUMPERS. Do you not think that makes a pretty attractive target?

General CHAIN. Yes and no. The yes part is, as I mentioned earlier, that during time of deterrence, which is the period that we are in today, if the Soviets want to launch against a garrison, that is fine. If they want to launch against the ICBM's in the silos, that is fine. But the President of the United States has the ability to get those out of the garrison just as quickly as he can get them out of the silos. So there is not any advantage of a Soviet trying to target them when they are in a garrison.

If the Soviets were weapons-poor, that might make it a lucrative target, but the Soviets are weapons-rich. They do not have to worry about whether they are in a silo or in a garrison.

During time of deterrence, which is what we are in today, guarding against a bolt out of the blue, those things can be launched out of the garrison within 2 minutes after key turn just like they can be launched out of a silo within 2 minutes after key turn. During time of war, the times are the same.

The value of the Peacekeeper rail garrison is during time of crisis to give the President a defensive move by moving them out on the railroad tracks, which does not increase our offensive capability but solely increases our defensive capability, because once the trains are out on the tracks, they are going to be extremely difficult to find and target.

Senator BUMPERS. How fast do they go when they leave the garrison?

General CHAIN. Well, they start out very slowly until they get out into the open tracks, if you would, and then they go maybe 40, 50 miles an hour, depending on the capability of the track and whether there are any bends in it. We are not trying to flush these things as quickly as we can. This is not a dash on warning; this is—I visualize the President maybe moving one or two trains out and calling his counterpart over there and saying that I am moving my trains out. He should know it anyway because he has overhead systems, so he ought to be able to identify when they leave the garrison.

But I think it adds to stability during time of crisis, and that is the strength of the mobility systems.

Senator **Bumpers**. How vulnerable are they to sabotage

General **Chain**. We have had the FBI and the CIA and other red teams look at them, and they are not very vulnerable to sabotage. When they are in the garrison, obviously they are going to be very well guarded.

When they go out on the tracks, when they leave the garrison, there will be security police on board, but for the first part of their journey they will also be escorted until they more or less get into the open-track area.

For sabotage to take place, there could be a fifth columnist or what have you. Spetznaz has been ruled out by those who know a lot more about this than do I. The Soviets cannot bet their country on getting away with sabotage at a particular moment in time because they do not know when in the heck the trains are going to leave, and they will not all be flushed simultaneously.

B-2 FLIGHT TESTS

Senator **Bumpers**. Mr. Chairman, I do not want to take too much time. I have two quick questions. No. 1, how many flight test hours has the B-2 flown?

General **Chain**. Thirty-two hours on the aircraft itself, but now it has flown again one more time. That was in the first phase. It has just flown again for about a 6- or 7-hour flight, and it is scheduled again, I believe, this week to fly. But as far as some of the components, they have certainly had a lot more time in another type of aircraft.

Senator **Bumpers**. How many flight test hours would you predict for this plane before you felt secure with it?

General **Chain**. The airworthiness, the first two phases—we have gone through phase 1 and phase 2 to expand the envelope. I think we have come a long way and better than the test pilots would have predicted in the phase 1.

They have run across no problems that have set back the program. The part of the program I am most interested in is what starts this fall, and that is when we start testing against stealth. As far as the flying attributes of the machine, I am very comfortable that it is going to work out very well because for years we have had to develop it, the new computer technology that has gone into the engineering, and the many hours of computer-simulated type tests that have been done on the ground before we even flew the airplane the first time.

But the interest that I have in it is its stealth characteristics. It has gone through wind tunnel tests and simulation, but I want to make sure that the thing is a stealth aircraft.

Senator **Bumpers**. Well, you would want us to know that, too, before we embark.

General **Chain**. Absolutely. And that is how I think the program has been laid out, you will know that before you—you have already invested $26 billion in building the factory. And so it is the dollars to go, and I think that the program that Secretary Cheney has laid out is certainly not getting way out in front of anything.

Senator **Bumpers**. I understood the other day, the press quoted you as saying you would not approve the START Treaty, you would be opposed to it unless you got all 132 B-2's. Is that a correct quote?

General **Chain**. No; it is not a correct quote. I said that I would not agree or I would testify against the START Treaty if we did not get the B-2 bomber. I did not put a number against it.

A year ago, if you would have asked me, I would have said the number was 132 because we walked through the logic and reason to get there. In the last year, as everyone on this committee knows, the world has done a lot of changing. The target base itself has gone under review, and with that review, and with the review that the Secretary has conducted, I can support the number of 75.

But I will tell you that that is pushing the feather edge as far as I am concerned.

Senator **Bumpers**. Well, what if Congress just says they are going to torpedo the B-2 program?

General **Chain**. I will come and testify in front of your committee or anybody else's against the START agreement.

Senator **Bumpers**. What if the President, your Commander in Chief sidles up to you and says, "General, I do not want to hear any more out of you about this"?

General **Chain**. Then I will be quiet unless I am called over here, subpoenaed over here to testify in front of you, at which time, by the law of the country, I can give my personal views.

Senator **Bumpers**. Just 1 second, Mr. Chairman.

On Soviet air defenses, you state that by the end of the century the B-1 and the B-52, if we still have any operable then, could not penetrate the Soviet Union based on a fairly robust air defense system that they are in the process of building and which you have indicated, Mr. Secretary, they are not willing to concede anything on in the START talks.

How can we know—I assume when you talk about testing the stealth part of the bomber—now or even next year that if the Soviets, you feel comfortably sure now—I remember when Cap Weinberger came over here in 1983, I guess, it was, or 1982, and testified that he would not send any mother's son in a B-1 bomber into the Soviet Union after 1990. And he got back over to the Pentagon and some of you fellows said, "Mr. Secretary, you just killed the B-1." He came back over here and said he was mistaken and he was really sorry about it.

Now, how can you give us any degree of assurance that the Stealth is going to be a penetrating bomber by the turn of the century?

General **Chain**. Let me clarify something that you credited to me in the beginning. I have said by the mid-1990's the B-52H will not be able to penetrate. By the mid-1990's and toward the turn of the century, the B-1 will have to be moved out of the highly defended and into the less defended areas. But I visualize the B-1 penetrating the Soviet Union well beyond the year 2000, just like the B-52H, which is a 30-year-old airplane, is doing it today, or has the capability of doing it today.

And the B-2 will go into the highly defended areas. We have had red teams with about 40 scientists that have gone through about 50 different scenarios and, while I am not a physicist I have looked at radar and missile evolutions, they tell us that the B-2 will be able to do the penetrating mission out beyond the year 2000.

Senator **Bumpers**. So all these stories on "60 Minutes" about a low-frequency radar being able to pick this plane up is nonsense?

General **Chain**. I read that. I wanted to throw up when I saw the transcript of the "60 Minutes" program, and I wish that a program like that would have the guts to put somebody on there live. The problem with the "60 Minutes" program is they want to tape you and then take 30 seconds of that tape and try to make you look like a fool. That program was a disaster.

Senator **Bumpers**. You would never make it in this profession, General.

General **Chain**. I guess not. But I think that that "60 Minutes" program was absolutely abominable and a disgrace to the country.

Senator **Bumpers**. Well, quite frankly, General, if a German kid can fly a Piper 150 into the Kremlin parade grounds, I really do not worry too much about the Soviet defense system. I just wanted to know, though, what your assessment is, because on an alert it might be an entirely different proposition. That kid might not have been able to get that Piper 150 in there if we had been in a crisis situation.

General **Chain**. I do not think he would want to try it again.

Senator **Bumpers**. Thank you, Mr. Chairman.

Senator **Inouye**. Thank you.

Senator Cochran.

STRATEGIC TARGETS

Senator **Cochran**. Thank you, Mr. Chairman.

Secretary Wolfowitz, General Chain, welcome. We appreciate very much your appearing before our subcommittee.

General Chain, on page 5 of your statement you indicate a number of factors that go into the targeting process, and as a result of the changes over the past year that we have seen and the progress in the START negotiations that we have seen, it would appear that the target side of the equation will be reduced somewhat in number but increased in mobility.

General **Chain**. Yes, sir.

Senator **Cochran**. Will this make your job increasingly more difficult, especially if we see a severe limitation on weapon availability?

General **Chain**. Yes, sir; the target base has changed, and that is why I am able to support the new number that Secretary Cheney has come up with of 75 B-2's. But, as you so rightly point out, the makeup of the target base inside the Soviet Union, as they prepare for the post-START force structure, is going more mobile, and the only weapons systems that we have today and will have tomorrow that have any chance of holding relocatable targets at risk are penetrating bombers.

Today we hold relocatable targets at risk with B-52's, who have the mission to go in and search a particular area and try to strike relocatable targets. Tomorrow we are going to need another weapon system that can do that with a higher degree of confidence, and that is going to be the B-2 bomber.

MX VERSUS SMALL ICBM

Senator COCHRAN. I am also concerned in view of the cutbacks that are obviously coming about what we do in terms of the ICBM leg of the Triad. You talk in terms of the Peacekeeper rail garrison as the nearest term, lowest cost, least technical risk option. At the same time, you mention the small ICBM and say it will provide added mobile capability and is ideally suited for the strategic reserve mission.

In view of the cutbacks, though, that may occur and we start having to make choices, do you not expect that we will have to abandon the small ICBM as essentially a redundant system?

General CHAIN. I do not think it is a redundant system, sir, but I think that in the fiscal environment in which we are operating the rail garrison is going to cost about $4.9 billion. The small ICBM is going to cost us about $25 billion. That is the type of check we would have to write to get them both going, to have them fully fielded.

If money were no object, I would prefer the small ICBM. But I do not need to tell you that money is a great object today. Therefore, in order of priority I prioritized the rail garrison in front of the small ICBM, but I believe that both systems are and will be of value to the United States. That is why they are in sequential order in our budget—to be able to field the rail garrison near term and then, after we have fielded the rail garrison and the B-2 and the Trident submarine, then there should be strategic system money, if you would, to be able to go ahead with the small ICBM.

Senator COCHRAN. Mr. Chairman, those are my only questions. Thank you very much.

TRIDENT MISSILE PRODUCTION

Senator INOUYE. Thank you very much. I have got a few questions. I just want to make a comment first. I agree with you on the bolt out of the blue, but I am concerned about the bolt out of the blue from some terrorist nut, and if we did not have the deterrence it might be the beginning of some unfortunate nuclear exchange.

With the shortfall of warheads for the D-5, should we continue full production of this missile?

Mr. WOLFOWITZ. We believe we should, Senator. I guess it is partly because we believe we are going to fix those problems, and we have to fix the problems. If they turn up, they are going to start turning up, as the questioning made clear, on boats that we have already got well into production. We are going to have to solve it for them, and I think, therefore, we certainly need to have it solved for the later ones.

Senator INOUYE. Have you considered acquiring the British warheads for the D-5?

Mr. WOLFOWITZ. I am told that there is both a timing problem and a legal problem. I gather that by law we are not allowed to have a British warhead. I am not sure which law this is. But also their warheads are not going to become available until 1994. It does not solve our near-term problem.

DISPUTE ON SOVIET STRATEGIC MODERNIZATION

Senator INOUYE. Mr. Secretary, there seems to be a rather serious disagreement in the intelligence community on the future status of the Soviet strategic forces. Can you tell us something about the disagreement and the impact it may have on policymakers?

One group says the Soviets are proceeding in a robust fashion; the other one says, no, it is going to be reduced.

Mr. WOLFOWITZ. Well, I was struck, Senator, that when we did the major aircraft review and we had the intelligence community in to brief us on how they saw the threat—and this was the entire intelligence community—there was, in fact, agreement about what they were predicting, and it is the kind of modernization program that I described.

There are some people—and I do not think they are necessarily wrong—who believe that the Soviet economic problems are so severe that eventually they will force a reduction even in their strategic forces. But what we have seen so far is that the Soviets have clearly put their priority, at a time when they are cutting their budget, on maintaining a very robust strategic program and taking their cuts mainly in conventional forces.

I do not think it is a large disagreement. It certainly was not my impression, for example, in reading what Judge Webster had to say, that he suggested that they had anything less than a robust modernization program going.

Senator INOUYE. The one who disagrees with the majority view is the Deputy Director of Intelligence of CIA. He is a major principal in the intelligence community.

IMPORTANCE OF SURVIVABILITY

My final question, should we place greater reliance in the future on the more survivable forces, such as missile submarines and cruise missiles?

Mr. WOLFOWITZ. I am sorry, Senator?

Senator INOUYE. On the nuclear subs and the cruise missile carriers, the bombers, and decrease reliance on the less survivable, the ICBM's and the penetrating bomber?

Mr. WOLFOWITZ. I do not buy the premise that the penetrating bomber is less survivable. I think that what we are tending toward is putting a greater emphasis on the penetrating bomber and on the submarine force, but without giving up the ICBM leg entirely. There are great advantages in that leg. It has greater connectivity. I think it is much less likely to be the target of some sort of limited strike.

I think, in fact, our force planning does show increased emphasis on the sea-based leg and the air-breathing leg. But if the question implies that the standoff cruise missile is more survivable than the penetrating bomber, I think that is wrong, No. 1. No. 2, the survivability of each is enhanced by the existence of the other.

The standoff cruise missile is going to become less survivable if we give up on the penetrating leg, because the Soviets will concentrate all of their defenses on the cruise missile, which is one kind of problem. If we give up on the cruise missile, they can concentrate everything on the penetrator. By forcing them to deal with both threats, in fact, we increase the survivability of each.

Senator INOUYE. Finally, an observation. The questions that were being asked by Senator Specter should be studied very, very carefully because those are the types of questions we will have to face in the coming weeks and months, and we will have to get answers other than to just say I disagree. We will have to back it up with justifications, arguments, et cetera, and I hope you can look into those questions and others similar to that and provide us with your input, sir.

I think it is very important.

Mr. WOLFOWITZ. Senator, I would like to say to Senator Specter that I am very impressed by the import of those questions, and, in fact, I gave a note to my people saying that we really have to think much harder about how we answer them.

I would say, broadly speaking, when we come to comparing conventional forces with strategic forces—maybe you get tired of hearing this—but it is a fact that only a small fraction of our budget is spent on the strategic forces, relatively small, and it is also a fact that where we are seeing the big changes in Soviet capabilities is in the conventional area.

That is where the threat has changed a lot and that is where we are planning to adjust a lot. We do not see the same change in strategic forces.

With respect to the even tougher question of how do you compare investment in deterrence with investment in schools and jails and so on, I guess that is even harder. But the fact is that none of those other things are worth it if we do not succeed in nuclear deterrence. That is the basic business we have to stay in. You have got to do it in a serious way, and I do not believe that the developments in the world of the last 12 months are entirely reassuring. We have spent a lot of time, partly at Senator Nunn's instigation, looking [deleted].

I do not mean to be alarmist. On balance, we think they are under good control and we do not have to worry. But I underscore that we are dealing with a superpower with more than 10,000 nuclear warheads and the ability to destroy this country in a matter of minutes, and it is terribly important to make sure that our deterrence against that kind of capability is strong.

Senator INOUYE. Thank you.

Senator Harkin.

RELATIONSHIP BETWEEN MOBILITY AND STABILITY

Senator HARKIN. Thank you, Mr. Chairman. I apologize for being late. I will just take a couple of minutes.

General Chain, I was struck by your written testimony on the importance of mobile missiles for crisis stability. In defending the need for the rail-mobile MX, you state that making ICBM's mobile will add increased stability in a crisis. I agree with you. Mobile missiles are stable because they are survivable.

Fortunately, most of our nuclear weapons are on mobile missiles—submarine-launched ballistic missiles, about the ultimate in mobility. But the Soviets are moving to land-based mobile missiles with the introduction of their single-warhead SS–25 and the 10-warhead, rail-mobile SS–24.

Do you agree that the Soviets are increasing crisis stability by moving to mobile land-based missiles?

General **Chain**. In a macro sense, yes, in that that makes it, from the Soviet perspective, more difficult for us to conceive of a bolt-out-of-the-blue attack against them. Therefore, I actually applaud the fact that they are going mobile. I would like us to be mobile also, because I believe in mutual deterrence. I do not want to be in a position where they are concerned about us being able to launch an attack against them and getting away with it, and I want to be in a position where there is no way that they could conceive of an attack against us and get away with it.

Therefore, I am a supporter of mobile missiles on both sides.

Senator **Harkin**. General, in your justification for the B–2 Stealth bomber, you state:

> A penetrating bomber is the only weapons system that has the ability and the capability to be enhanced to hold mobile targets at risk.

In other words, the B–2 may contribute to the vulnerability of Soviet mobile missiles. Now it seems to me that this is destabilizing, and one could argue that if we are interested in crisis stability, as you have stated, that we should not add the B–2. So would you agree that the B–2 in this context is destabilizing?

General **Chain**. No, not at all, because if it were a first-strike capability then I would agree, but it is not. A bomber takes a long time to get to the target area, and, therefore, it cannot conduct a bolt out of the blue. Now if an ICBM or a submarine-launched ballistic missile could hold mobile targets at risk, then that would be destabilizing. But by having a bomber which takes time to get there, which cannot conduct a first strike, that does not end up messing up the equation of stability. It is just the opposite.

Senator **Harkin**. Well, then if that is to be used as a poststrike instrument, would not all of the mobile missiles already have been launched?

General **Chain**. No; not at all. One has to understand that the rationale of how one lays down a war plan—and I would assume, although I am not the Soviet planner, but using the United States as the example—that one of the advantages of a mobile system is strategic reserve. If or when the United States gets a small ICBM, I visualize the small ICBM being placed in our strategic reserve so that it can then attack emerging targets. One of the advantages of a mobile system like the Soviets' SS–24's and SS–25's is they can hold them back in reserve and then go in after the category of what would be emerging targets.

Senator **Harkin**. General, let us assume that a nuclear war has started. Put yourselves in the shoes of a Soviet military command. Without the B–2, they know that they will survive in their underground command and control bunkers, and they know that their mobile missiles will most likely survive. In a crisis, there is no incentive, no advantage in firing those missiles.

Now add the B-2. Now the Soviets would fear that their mobile missiles and their mobile command trailers might be destroyed if they wait. Under these circumstances, would it not be logical that the B-2 would put more pressure on the Soviet leadership to fire their remaining mobile missiles sooner rather than later, once a war began?

General CHAIN. Yes and no. The yes part is how many missiles or how many warheads they thought they needed to launch in the initial attack to be able to destroy the target base that they want and how many missiles they want to hold in strategic reserve. They would not put any pressure on them because, as I say, the bomber does not show up there for 7 or 8, 9, 10 hours, depending on the location of the target base.

ROLE OF B-2

Senator HARKIN. Well, then I guess I come back full circle again. What is the use of the B-2, then? You say the use of the B-2 is to put their mobile missiles at risk.

General CHAIN. No; I did not say that. I said the value of the B-2 is to hold at risk the total target base, that it is the only weapons system in the inventory today or tomorrow that can hold at risk mobile systems. And, as I say, if the Soviets put those in strategic reserve, they probably will not have been fired or perhaps not have been fired and therefore the B-2 can hold them at risk.

And the whole objective of this exercise is to have deterrence in the first place so the war never starts.

Senator HARKIN. But the B-2 does not do that.

General CHAIN. It does not. It contributes to the deterrence. If you are a Soviet planner and look at the United States and see bombers on alert that can penetrate, missiles in silos, missiles on trains, submarines at sea, you look at that force structure, you can say to yourself there is no way that I can attack the United States and get away with it. That adds to deterrence. That is what deterrence is all about. You have to look at the nuclear deterrence in the three time periods—the day-to-day, like we are in today, time of crisis, and time of war.

Day to day, the bomber is very valuable to you as an American citizen, as an American leader, because the Soviet planner can look at our force structure and say there is no way that I can attack the United States and get away with it.

During time of crisis, the bomber becomes more valuable because we can generate the force, disperse the force, put it airborne, and it is very difficult to hold at risk by a first strike. Then during time of war, which we hope will neve take place, the bomber can hold at risk the total array of targets inside the Soviet Union, to include the relocatable targets. And overarching all that, it is the most stabilizing system that exists. That is the reason that their arms controllers have pushed for all these years to control ICBM's and SLBM's and concentrate on the bomber on both sides as being the most stabilizing force.

So if you could only have one force, which I certainly would not argue for, but if you could only have one weapons system, the most stabilizing weapons system on both sides would be the manned bomber.

Senator HARKIN. I will have to read your remarks in the record and see how that tracks with the stabilizing-destabilizing aspects of mobile missiles.

STEALTH DETECTION

One last thing, a related issue on the B-2 regarding IR detection. The press has reported that the Navy was able to detect the Air Force F-117 stealth fighter from space using infrared detectors on their White Cloud ocean surveillance satellites. If the F-117A can be detected by IR sensors, would not the heavier and bigger B-2 be more easily detected?

General CHAIN. I have not seen any report on that, sir, of the Navy looking at the 117.

Senator HARKIN. So what I just said to you is not within your realm of knowledge?

General CHAIN. No, sir; I do not know.

Senator HARKIN. I would like to find out from somebody.

General CHAIN. Sir, I will provide it for the record.

Senator HARKIN. I am not saying that I know this for a fact. I just know it has been reported.

General CHAIN. Let me provide something to you for the record, sir, because I do not know the answer to that question

Senator HARKIN. Thank you very much, General.

Thank you, Mr. Chairman.

[The information follows:]

Secretary of Defense Richard Cheney wrote to Senator Dale Bumpers concerning stealth issues on July 20, 1990. In his letter, he referred to press reports alleging that U.S. satellites could detect the F-117. Secretary of Defense Cheney states, "No such capability exists. Those reports were apparently misinterpretations of public comments by a Navy official."

Senator INOUYE. Before we thank and dismiss our witnesses, I would like to make an announcement to the subcommittee. I will begin planning a subcommittee trip, a short overnight, 2-day trip covering Omaha to get an up-to-date briefing, and then from there proceed on to California to look at the B-2, the ATF, and the C-17.

These are what I would call the endangered species and I think we should have the latest information available before we enter into the debate.

So, General, I hope you will prepare yourself.

General CHAIN. Yes, sir; we look forward to it. Thank you.

Senator INOUYE. Mr. Secretary, General, I thank you very much.

Senator STEVENS. Mr. Chairman, could I say that I really join you in thanking the Secretary and General Chain for coming to be with us today.

General, how much longer have you got to be in that spot?

General CHAIN. Sir, my mandatory retirement is November 1991, so a little over a year, sir.

Senator STEVENS. We may have to change the law by that time, General.

General **Chain**. Fine with me, sir.

Senator **Stevens**. I thank you very much for what you are doing.

Senator **Inouye**. I join my colleague in thanking both of you. You have been very forthright and candid, and this is what we need as we prepare ourselves for the forthcoming debate. As you pointed out, Mr, Secretary, in all likelihood the decisions that we make this year will have a major impact upon what the situation will be a decade from now.

If that is the case, we want to make certain that our decisions are the correct ones.

ADDITIONAL COMMITTEE QUESTIONS

We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO SECRETARY WOLFOWITZ BY SENATOR INOUYE

BAN ON RAIL MOBILE

Question: Secretary Wolfowitz, what is your assessment as to the likelihood the Soviets would agree to ban rail-mobility, multiple-warhead ICBMs?

Answer: The negotiability of such a proposal would depend on a number of complex factors, especially the composition of mobile forces on each side. Unfortunately, the current situation is not one where both sides have similar forces.

The Soviets have made significant investment in the production and deployment of mobile ICBM forces, both MIRVed (SS-24s) and single-warhead types (SS-25s). On the other hand, the U.S. has conducted only research and development on the Rail Garrison basing mode and the Small ICBM in hard mobile launchers. Currently, the Soviets have deployed over 20 of the 10-RV SS-24 rail mobile missiles and over 200 single-warhead, road-mobile ICBMs. The U.S. has only plans to re-deploy Peacekeeper missiles from silos to Rail Garrison. As such, it is not clear the Soviets would scrap their rail-based SS-24 basing mode in exchange for an agreement from the U.S. not to re-deploy the Peacekeeper into Rail Garrison.

NO MOBILE OR MULTIPLE-WARHEAD ICBMS

Question: Secretary Wolfowitz, do you think the U.S. would be more or less safe if the strategic forces of both sides did not include mobile, multiple-warhead ICBMs?

Answer: The situation we face today is that the Soviets have a mobile, multiple-warhead ICBM and the U.S. does not have one. This is far from optimal.

THE B-2 PROGRAM CHANGES

QUESTION: What specific changes in U.S. strategic deterrent requirements -- especially in target coverage -- have occurred to permit this redefinition of the needed minimum bomber force?

ANSWER: The decision to reduce the planned number of B-2 bombers took into account both changes in the threat (including implications for U.S. targeting requirements) and fiscal reality.

The basic rationale for 75 aircraft is that it supports deployable, manageable force with two wings of 30 aircraft each, plus an extra 15 aircraft for maintenance and training. Two deployable wings are needed in order to have a significant impact in terms of Soviet air defenses and in terms of capitalizing on the benefits of the penetrating bomber. Fewer aircraft would make for an enormously expensive force to operate and not all that much capability.

B-2 BOMBER PROGRAM

Question: Before the Major Aircraft Review, the average program unit cost of the B-2 bomber was about $540 million. Its flyaway cost was about $315 million. Each B-2 now may have an average program unit cost of $815 million. What are the new unit costs for the B-2 bomber? Why do you think the American taxpayer should pay that much for each aircraft? How can such an investment for such a relatively small number of aircraft be cost-effective?

Answer: Critics of the B-2 have claimed that the cost estimate for each individual B-2 aircraft is $810 million. They arrive at this figure by dividing the entire $61 billion program cost by the planned 75 aircraft buy, yielding a very simple concept but misleading cost per aircraft impression. What is ignored by this approach is that of the $61 billion, $26.7 billion has already been appropriated for this program. Terminating the program now at 15 aircraft, as proposed in legislation before Congress, would not effectively contribute to our nation's overall defense posture. If this approach was adopted, we will have spent $35.4 billion for 15 aircraft, which equates to virtually no effective combat capability. Whereas, for approximately $26 billion more, we will obtain 60 more aircraft, for a total of 75 and possess an effective combat capability.

The current funding profiles would indicate that the average unit flyaway cost to complete the remaining B-2s will be $423 million per aircraft, based on then year dollars. While the total cost calculation would include research and development, training devices initial spares support equipment, the flyaway cost could be viewed as the cost of producing one airplane as you see it on the runway, not including fuel. Because the R&D and manufacturing equipment have already been bought, flyaway cost is the best measure to examine the B-2 cost.

The value of the B-2 is inherent in its contribution to deterence and stability. The B-2 contributes to a strong bomber force which is essential to the Triad and to the US objective in START of moving away from "fast-flyers." The B-2 allows us to hold at risk a full range of targets and takes advantage of favorable START counting rules. It challenges Soviet air defense to a degree not posed by current penetrating bombers or an all cruise missile bomber force and would impose a significant investment by the Soviets to develop a system to counteract the B-2's very small radar cross-section. Lastly, the B-2 provides flexibility for conventional use, in a future when the US will have reduced forward forces and access to overseas bases.

Question: Secretary Cheney said the Major Aircraft Review assessed likely, future combat scenarios for U.S. forces and several procurement plans for all the aircraft. What were the specific nuclear and conventional scenarios, and alternative procurement options, considered for the B-2? What B-2 options were most and least costly, and yielded best and worst target coverage?

Answer: A number of alternative bomber force structures for the year 2000 and beyond were examined as part of the Major Aircraft Review. These force structures were assessed for their employment capability during a nuclear war and their contribution in the conventional combat role. During this review process, the B-2 was evaluated in its primary mission which is to help America deter a nuclear attack by providing the bomber leg of our strategic triad with an independent capability to penetrate likely Soviet air defenses well into the next century. Also considered was the type of attributes that these forces possessed, for example: an all standoff force; a shoot and penetrate force; and an all penetrate force application was reviewed.

Various procurement options were reviewed, to include: limiting the total buy of the program at several levels, capping the annual production rate at various levels, and terminating the entire program at the current investment to date.

The final decision to proceed with the program as announced by the Secretary on 26 April. As stated by the Secretary, this buy profile was driven by the fiscal realitites of our time and reflects the changing political events on the international scene.

HOW MUCH DETERRENCE IS REQUIRED

QUESTION: Do these new START force levels give us the opportunity to reassess our nuclear targeting and damage expectancy requirements, and the balance among the various components of our strategic TRIAD? Are you willing to undertake such a reassessment?

ANSWER: All of our nuclear plans are reviewed regularly by senior military and civilian officials within the Department of Defence, including the Secretary and the Chairman. As Secretary Cheney told the HASC on 26 April 1990, we are taking a close look at U.S. nuclear targeting requirements. This is a very sensitive and highly classified study and as the Secretary has indicated, he is prepared to inform Congress of the results of the review at the appropriate time and in an appropriate setting.

Question: Secretary Wolfowitz, if adequate deterrence can be maintained with 6,000 warheads -- without the non-countble bomber weapons or all the warheads on programmed levels of ICBMs and misile submarines -- could we change these programs and save funds?

Answer: Regardless of the outcome of the arms control discussions currently underway, modernization of the our strategic nuclear force will remain a priority for this Administration. While a START agreement will provide significant benefits in terms of stability and reductions in Soviet force levels, the Soviet Union will still retain an impressive and very modern nuclear force structure. In fact, because they continue to modernize at a rapid pace, the Soviet Union by the turn of the century will have a strategic nuclear force that it is in many ways even more effective than their current force. Just as any START agreement will reduce Soviet force levels, it will also mandate reductions in the United States' force structure levels.

Since the mid-1960's and even through the years of the defense build-up, strategic programs accounted for only 9 to 13 percent of the overall defense budget. The Soviet Union continues to invest heavily in both strategic offense and defense even as our superpower's relations improve. Today, we face the most capable Soviet nuclear force structure ever. Investment in nuclear deterrence must remain a priority for our nation for the Soviet forces are the only military forces in the world capable of threatening the very physical existence of our nation.

We will, of course, continue to monitor the ever changing world environment and recommend those changes necessary to ensure the attainment of our nation's objectives.

SDI AND THE ABM TREATY

Question: Secretary Wolfowitz, how far apart are the positions of the U.S. and the Soviet Union with respect to renegotiating the limits of the ABM Treaty? What are the specific, major differences, and what are their implications for the pace and composition of the SDI program?

Answer : [Deleted]

STRATEGIC DEFENSE INITIATIVE (SDI)

Question: Secretary Wolfowitz, the Chairman of the Senate Armed Services Committee recently stated the following: "Assuming SDI is redirected into a coherent and rational research program ... it should be funded at roughly the current appropriated level. Restructuring SDI to respond to sensible goals is a prerequisite this year if Congress is to approve even this level of funding." What is the Administration's response to Senator Nunn's suggestions?

Answer: We continue to believe SDI has an important role to play in ensuring U.S. national security in the 1990s and beyond. President Bush said this best when in February he told workers at Lawrence Livermore National Laboratory that, "In the 1990s, strategic defense makes much more sense than ever before." Furthermore, the President's budget request for SDI in Fiscal Year 1991 deserves support and should be approved in its entirety. This plan represents the most efficient and effective means of moving the SDI program forward in such a way as to meet the President's long-standing objectives.

Make no mistake: Dramatic reductions in the SDI budget will have a negative impact on our ability to carry forward a range of technologies and system concepts applicable to a multi-tiered strategic defense system. Balance between relatively mature and more exotic (follow-on) technologies will also be jeopardized. If the Congress makes dramatic reductions in the budget, or ties the SDIO Director's hands in managing the program, these negative impacts will simply be compounded.

QUESTIONS SUBMITTED TO SECRETARY WOLFOWITZ BY SENATOR BYRD

STRATEGIC NUCLEAR PROGRAMS

Question: Please discuss the extent to which you expect each of these strategic nuclear modernization programs to be affected by the treaty. Are any of these programs likely to be reduced in pace or scope and how will this affect the traditional mix of U.S. strategic forces?

Answer: The Administration's arms control proposals and strategic force modernization effort are mutually reinforcing. Under the agreed central limit of 6,000 warheads, a force mix including all of the systems currently being modernized is both permitted and desirable. In fact, the U.S. position in START was crafted to permit the introduction of modernized strategic weapon systems into the force as aging U.S. systems are retired.

TARGETING REQUIREMENT REDUCTIONS

QUESTION: A number of the targets in the U.S. strategic target base are located in Warsaw Pact countries. If Soviet and other military targets are removed from these countries as a result of present international political changes and prospective conventional arms cuts, I would assume that our targeting requirements will be reduced. To what extent might such a change in our requirements lead to changes in our strategic modernization programs?

ANSWER: We are all taking note of what is happening in Eastern Europe. We have been studying the implications of the recent events there for our planning and requirements. In fact the change in requirements for the B-2 resulting from the Major Aircraft Review stemmed in part from the fundamental changes taking place in Eastern Europe. Even as the Soviet forces leave Eastern Europe countries, however, the major threat to the U.S. is still the strategic forces of the Soviet Union. This threat still requires our continued pursuit of strategic force modernization.

STRATEGIC BOMBERS AND ARMS CONTROLS

Question: The United States and Soviet Union are working towards completion of a Strategic Arms Reduction Treaty (START) that would limit both countries to 6,000 accountable warheads on strategic nuclear forces (land-based ballistic misslies, submarine-launched ballistic missiles and strategic bombers). Since the Treaty would count bombers that do not carry cruise missiles (such as the B-1 and the B-2) as one warhead, even if they could carry up to 20 bombs and short-range attack missiles, and bombers that carry cruise missiles (such as the B-52) would be counted as 10 warheads, even if they could carry twice that number, the United States could deploy nuclear weapons under a START agreement. Spokesman for the Air Force and the Joint Chiefs of Staff have stated that the United States must deploy this number of weapons if it is to threaten vital targets in the Soviet Union and thus maintain deterrence. However, the Administration and Congress may sharply curtail the number of B-2 bombers eventually deployed. I am advised that there is some interest in having the Air Force continue with its plans to convert the B-1 bomber to carry cruise missiles, thus changing it from counting as one warhead to ten warheads, in order to ensure that the bomber remains effective even if it could not penetrate Soviet air defenses. Both of these changes in Air Force plans would reduce the number of weapons that the United States could deploy under START. Please comment on the relationship between the B-1 and the B-2 bomber. If these two changes in the Air Force programs occurred at the same time, how might they affect the operations of the manned bomber force, assessments of deterrence, and your support for a prospective START agreement?

Answer: The B-2 and B-1B complement each other by presenting Soviet air defenses with a formidable problem. The Department is planning to maintain the two bombers as penetrators - the B-2 against heavily defended target areas and the B-1B against less defended areas. The Department does plan to maintain the B-1B as a penetrator for as long as possible. On the other hand, the B-2 bomber is necessary to ensure penetration into the 21st century. Procurement of the B-2 is critical to sustaining an effective deterrent under START and to achieving our objective of shifting both US and Soviet strategic forces towards slower-flying systems. Agreement at Reykjavik on the current bomber counting rule was an important success for the United States. Reopening the issue of bomber attribution now could seriously complicate the START negotiations.

STRATEGIC NUCLEAR PROGRAMS

Question: To what extent could the United States save money by signing a Strategic Arms Reduction Treaty or a Conventional Forces in Europe (CFE) agreement if current modernization plans were slowed and a greater number of older weapons systems were retained? Please discuss the types of new satellite systems and on-site monitoring technologies needed to verify Soviet compliance with START and CFE and the costs of developing and deploying these verification systems.

Answer: (Part I) The United States would not be able to save significant sums of money and could, in fact, incur both military and economic costs by attempting to draw out modernization programs and retain older weapon systems.

In several major categories of weapons, it is not simply a question of prolonging the life of an existing weapon system but rather the choice between deploying new systems or reducing force structure. For example, at or near the 30 year point the Poseidon submarine force will reach the end of its useful life and therefore must be retired.

Moreover, as systems age, the cost of maintaining older systems increases. Thus, completion of planned modernization and retirement of old weapon systems reduces costs by reducing the number of systems that must be maintained at the same time. For example, in the case of SSBNs, the move to a single missile support infrastructure provides the added benefit of reducing overall SLBM life cycle costs.

[Deleted]

Question: Please explain whether and why the Administration favors so small an ICBM force and, if not, please describe what ICBM/SLBM mix the Administration deems appropriate.

Answer: As we have indicated in previous discussions, the position of the Department of Defense has been to defer the announcement of a definitive post-START force structure until after a START agreement is finalized. In general, survivability, cost-effectiveness and system flexibility are all factors which we are examining in defining our post-START strategic force structure. We are currently conducting a review to determine the optimal "mix" of ICBM and SLBM warheads within the 4900 limit on ballistic missile warheads.

QUESTIONS SUBMITTED TO GENERAL CHAIN BY SENATOR INOUYE

SOVIET STRATEGIC THREAT ISSUES

Question: General Chain, Soviet strategic forces are expected to become smaller due to arms control limits and slower modernization programs. What major changes do you project for these forces in the future?

Answer: [Deleted]

Question: General Chain, would you agree that our missile submarines are the most survivable leg of the US Triad today and are likely to remain so for at least the next decade? Does US intelligence have any evidence this assessment will change in the next 10 years, even with relatively few Trident boats?

Answer: Survivability is a function of the system's attributes in the context of a defined threat. Our missile submarines do have features, such as mobility and "stealth," which increase their survivability. However, those submarines which are not at sea are not very survivable. In addition, if a submarine is detected, a large number of warheads are put at risk.

The real issue is not which leg of the Triad is the most survivable. Rather, it is whether the one leg has qualities which complement the qualities of the other legs of the Triad. The Triad presents an enemy with an impossible targeting task today and a hedge against a technological breakthrough in the future. An adversary cannot destroy any one leg of the Triad without risking destruction from the other two. The Triad also significantly complicates an adversary's defensive planning efforts.

US intelligence has no evidence Soviet developments in strategic defenses will change the relative survivability of the SLBM or bomber leg of the US Triad. The Soviets are investing in counters to both of these capabilities, but we are aware of no developments or breakthroughs which would effectively negate either leg.

Question: General Chain, can you assess present and future Soviet capabilities to counter the US stealth bomber and the advanced cruise missile? What indications do we have that the Soviets are concerned about these systems and are making an effort to adapt their air defenses to counter them?

Answer: Currently, the Soviets have [deleted] environments.

Although the [Deleted]

We expect [Deleted]

Question: General Chain, what improvements in Soviet strategic air defenses show the need for the advanced cruise missile?

Answer: The Soviets are [deleted]

They are developing

During the next decade, the Soviets

In addition, the Soviets are

[deleted]

In summary, Soviet

[deleted]

Question: General ~~Chain~~, what are the major weaknesses or operational shortcomings of each major component of Soviet strategic forces which provide the US with advantages to exploit?

Answer: There are differing characteristics of the various components of Soviet strategic forces which influence how we deploy and employ our force. In some cases, these characteristics can be labeled weaknesses or operational shortcomings which we can exploit.

If hostilities were initiated, though, SAC's main focus would be on the weaknesses and operational shortcomings of [deleted] We have considered these shortcomings in our planning for execution of SAC forces under the SIOP. For [deleted] there is no effective in the which would The would have only [deleted] in that area and this has been factored into our planning.

Soviet strategic defensive threats to air-breathing weapon systems are composed of early warning (EW) and ground control intercept (GCI) radars, a netted C^3 system, surface-to-air missiles (SAMs), and airborne interceptors (AIs). EW/GCI radars are important for early detection and/or efficient allocation and assignment of other systems--SAMS and AIs--that actually do the killing. The major

[deleted]

With reduced radar cross section (RCS) vehicles like the B-1B, we penetrate at high speed and low altitude to minimize exposure and detection. Similarly, [deleted]

probabilities even lower.

Although the Soviets have a [deleted]

As they improve their system, we have also planned improvements such as the [deleted] if they chose to do so.

Given detection by an EW/GCI site, [deleted] A ballistic missile laydown before the bombers arrive would certainly degrade the Soviet C^3 system. To enhance [deleted]

The Soviets are also making improvements in their ability to [Deleted] However, their newest [Deleted] effectiveness.

Because [Deleted] forces. To [Deleted] First, the though, the [Deleted] With a [Deleted] For example, if an [Deleted] In the and missile seeker performance are greatly reduced. If the [Deleted]

In summary, the main Soviet weakness that we exploit across the spectrum is their inability to maintain technogical parity with the West. The US is unlikely to match the Soviets in total numbers of weapons or in total manpower. Thus, we must continue to modernize our strategic forces with aircraft like the B-2 (a technology leap that makes the Soviets' current defensive systems nearly useless).

Question: General Chain, how would you assess Soviet capabilities to develop and deploy strategic systems comparable to the US stealth bomber and advanced cruise missile? What timetables would you expect to see such developments?

Answer: [Deleted]

Current US defenses and target base do not present a serious challenge to the Soviets. [Deleted]

Stealth, by US standards, requires the full integration of all elements of signature reduction.

[Deleted]

Assimilation of US technology by the Soviets will allow them to reach integrated stealth system performance more quickly.

[Deleted]

Similarly, [Deleted]

Question: General Chain, is the technological sophistication contained in Soviet strategic weapons, albeit improving, still behind that of US strategic systems, with perhaps the exception of Soviet ICBMs?

Answer: Yes, but we must assume the Soviets will continue to attempt to close the gap in key technologies. Recent Soviet statements indicate that, in light of economic realities, they will start emphasizing quality rather than quantity. A large percentage of the
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In the air defense arena, the Soviets
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The technological leverage we enjoy is an important lead that must be retained.

STRATEGIC OFFENSIVE FORCES--CINCSAC'S PRIORITIES

Question: General Chain, proponents of the Small Mobile ICBM say it is a better system than Rail Garrison/MX because it can survive a "bolt-out-of-the-blue" surprise attack. They claim it thus contributes more to nuclear stability, especially in a crisis, and is more cost effective per survivable warhead.

Are you willing to accept a lower level of survivability with Rail Garrison/MX rather than the Small ICBM? Why do you think Rail Garrison's impact on nuclear stability is acceptable?

Answer: Small ICBM (SICBM) and Peacekeeper Rail Garrison (PKRG) each have unique strengths and capabilities under different sets of circumstances.

The synergy of these highly compatible and complementary systems is, I believe, what the President had in mind when he directed his two-missile program. We need both of these modernized ICBM systems to improve our warfighting capability and enhance overall nuclear stability.

In today's fiscally constrained environment; however, we need to field PKRG before SICBM. This does not mean that I would have to "accept a lower level of survivability with PKRG." As I've said on many occasions, a crisis scenario and bolt out of the blue attack are mutually exclusive situations. In a crisis, I am confident of having the warning and indications of enemy force generation, and I would respond by dispersing PKRG. Once dispersed, their location uncertainty would extract such an extremely high price to attack that it would eliminate the enemy's chance of a successful attack. Realizing that, a rational enemy would be effectively deterred from attacking in the first place.

General Chain, the Chairman of the Senate Armed Services Committee recently recommended that procurement of the Rail Garrison MX basing system should be slowed due to excessive concurrency, that a ban on US and Soviet rail-based multiple warhead ICBMs should be discussed, and that the Small ICBM should be deployed first in silos.

Question: What would be the operational impact of slowing Rail Garrison procurement, banning rail-mobile multiple-warhead ICBMs on both sides, and deploying the Small ICBM in silos?

Answer: Given the same number of warheads, there is no reduction in our capability to cover targets if Peacekeeper remains in silos and Small ICBM (SICBM) is deployed in silos. Deploying SICBM in silos would affect the weapon system's [Deleted] which mobile basing provides. Operational flexibility would be limited for use during the [Deleted] Our current operational employment concept envisions [Deleted]

MAJOR AIRCRAFT REVIEW--B-2 PROGRAM CHANGES

Secretary Wolfowitz, last week Secretary Cheney reported on the results of the Major Aircraft Review. He recommended cutting the B-2 bomber program almost in half--from 132 aircraft to 75. He said that 75 B-2s "will provide the minimum essential target coverage to capitalize on the penetrating bomber role." Until this recommendation, the Defense Department and General Chain, as SAC Commander, insisted that 132 B-2 bombers were the minimum needed.

Question: General Chain, what is the impact of the reduction in B-2 procurement on the initial operational capability (IOC) or required asset availability (RAA) of the bomber?

What impacts will this reduction have on other SAC programs and forces?

Answer: The reduction in B-2 procurement should have no impact on IOC. Likewise, it will not affect other SAC programs and forces.

B-2 PROGRAM

QUESTION: (For the record, please provide all the procurement options and scenarios considered, along with a detailed explanation of each of the critical factors/ measures of effectiveness and cost-effectiveness which distinguished among the procurement options.)

ANSWER: Two broad types of alternatives were considered in the Major Aircraft Review (MAR):

- First, detailed analyses of alternative B-2 acquisition profiles and force structures were conducted. These analyses were designed to determine, in the context of current doctrine and appraisals of the threat, how many B-2s are needed and what alternative acquisition strategies might cost. The acquisition alternatives considered included the baseline production ramp-up rate but with a smaller total procurement quantity, an option in which procurement funding would be capped at $6 billion annually, and an option with a three-year hiatus in ordering new production aircraft. Costs would increase modestly under a $6 billion annual funding cap, but would increase significantly if production were gapped, due to the large enterprise overheads associated with B-2 production and to the large costs of rehiring, recertifying, and restarting production. For similar reasons, costs could also increase significantly if a more stringent funding cap were imposed.
- A broader but related effort compared alternative force structures--with differing combinations of B-2s, B-1Bs (in both penetrating and standoff roles), and B-52Hs--in terms of cost and operational effectiveness. The different acquisition profiles discussed above were available to the forces containing B-2s. Force alternatives without an operationally viable B-2 force relied on B-1Bs and aging B-52Hs. In that case, some missions would simply not be feasible, while substantial upgrades would be required to perform others. Without the B-2, strategic bomber acquisition costs would be substantially reduced, but overall bomber force effectiveness would also be degraded. The possibility of producing more B-1Bs was considered but was determined to be extremely costly, and clearly inferior to continuing with B-2 production. While an all-cruise-missile force would be an alternative to a diversified force with penetrating B-2s, it would diminish the robustness of the triad and would simplify the challenge to Soviet air defenses. Effectiveness was evaluated in terms of the ability to cover target bases that include both fixed and mobile targets, to penetrate expected Soviet air defenses and damage the target set, to counter potential Soviet air defense developments, and to provide flexibility in attack planning and execution. The ability of the Soviet Union to focus its air defense effort against specific threats, as opposed to coping with a diversified bomber force, was considered along with other factors that are difficult to quantify.

HOW MUCH DETERRENCE IS REQUIRED?

Question: General Chain, your statement discusses how you develop the overall nuclear war plan--the Single Integrated Operational Plan, or SIOP. Please compare--in terms of target coverage and damage expectancy--how each leg of the current Triad, and the total force, measure against each future leg and the total force in 1995 and the year 2000?

For the record, provide these comparisons using these cases: (1) the forces programmed in the new six-year-defense plan; (2) the forces projected to be acquired before the Major Aircraft Review (MAR) modified the B-2 program: (3) forces deploying 200 or 500 Small ICBMs in silos/hardened mobile launchers, a Trident submarine building rate of one every other year, 50 MX/Rail Garrison missiles and no Rail Garrison, and B-1B bombers in three configurations--all penetrators, all shoot and penetrate, all Advanced Cruise Missile carriers.

Answer: Our analyses of future force structure capabilities under the new six-year-defense plan focused on the decreasing size of the strategic forces and a relatively constant task. Such analyses showed that we suffer a significant decrease in the capability of the ICBM leg due to retiring approximately 650 ICBM warheads to accommodate the START sublimit of 4900 ballistic missile warheads, assuming [delete] on Trident submarines. With the reduction in ICBM warheads caused by START, the ICBM leg damage expectancy (DE) would drop considerably. Even if we continued to modernize the SLBM leg with the D-5 missile, the SLBM leg DE would drop marginally over the next ten years due to START reductions in overall numbers--over 2000 warheads. With the combined effects of SRAM II, ACM, and the B-2, however, the bomber leg DE would increase substantially. This offsets decreases in the other two legs and would achieve approximately the same overall DE in the year 2000 as we expect today. Without bomber leg modernization, the overall DE would drop notably and some critical target classes would be much less vulnerable to attack.

Pre-MAR forces were developed for a targeting policy based upon the threat to the US and allies [delete] [delete] The dramatic changes in Eastern Europe, coupled with serious fiscal concerns, were the principal reasons the Secretary of Defense directed the MAR. The MAR B-2 procurement recommendation produces a force structure that essentially provides the same capability against the Soviet Union [delete]

Without the B-2, there are not militarily sufficient forces under the START I framework to hold the target base at risk, [delete] SAC has examined numerous force structure variations such as those cited in the third case. The results are summarized as follows: In a START I environment, where the number of ballistic warheads is limited by treaty, the yardsticks of target coverage and DE show only minor differences in capability for forces that trade one ICBM warhead for another or swap ICBM basing modes. This does not negate the long-term need for ICBM modernization which is geared toward providing mobility--adding stability in a crisis.

The advantages of a new, replacement ICBM are measured in terms of age, ease of maintenance, operational targeting flexibility, and system reliability. Alternative basing modes provide survivability, endurability, crisis stability, and targeting flexibility. Similarly, slowing the build rate for Trident would not change target coverage and DE unless the Poseidons they replaced were retired on an accelerated schedule.

On the other hand, changing the B-1B from a pure penetrating role to a cruise-missile carrying role would have a significant impact on warfighting capability. [Deleted]

The consequence would be a loss of over 1000 penetrating bomber weapons with a corresponding decrease in target coverage and DE.

Without modernization, even with START, we incur a substantial risk, which I, as the Commander of Strategic Air Command, am not willing to take.

KC-135 TANKER AIRCRAFT

General Chain, two of the most successful acquisition programs of the Air Force are the re-engining of KC-135 tanker aircraft from the "A" to the "E" and "R" configurations. Last year, 36 "R" and 10 "E" kits were funded by the Congress.

Question: Can you tell us why you support procurement of only 24 "R" kits in fiscal year 1991 for our active forces and no "E" kits for our Air reserve forces?

Answer: While I agree that the KC-135 R and E model conversions have been highly successful Air Force acquisition programs, they compete with other important SAC programs for scarce budget dollars. In a fiscally unconstrained environment, modification of KC-135s at the maximum economic rate would be advisable. However, in today's fiscal environment, 24 kits in fiscal year 1991 is an acceptable production rate. This should in no way be construed as diminished command support for the R model program.

The Air National Guard/Air Force Reserve KC-135 E model program has received SAC's full support. Such conversions are an interim measure for KC-135s already transferred to the ANG/AFRES. In the long term, the total USAF KC-135 tanker force should be KC-135Rs.

Question: General Chain, considering the cost of the KC-135R program, how many aircraft can you afford to modify annually and how long will it take to modify your entire fleet at this rate?

Answer: We would like to stabilize KC-135R production at approximately 36 aircraft per year. This conversion rate will allow us to complete a fleet-wide modification of C-135 series aircraft by the end of FY2005. This program will yield significant savings in operating costs over the predicted service life of these airframes--which will run well beyond the turn of the century.

Question: Do you agree that the "E" configuration used by Air Reserve Forces provides a significant improvement in capability over the "A" model?

Answer: The E model configuration of the KC-135 used by the Air Reserve Forces is a substantial improvement over the A model. When compared to the A model, the E model off-loads 20% more fuel, consumes 14% less fuel, reduces the noise footprint by 85% and decreases smoke pollution by 90%. I would point out, however, that while the E model is an improvement over the original A model, the CFM56-equipped R model outperforms both handily. When compared to the A, the R model off-loads 50% more fuel, consumes 27% less fuel, decreases the noise footprint by 98%, and decreases smoke pollution by 92%. The goal of the Air Force is to eventually convert all KC-135s to the R model configuration.

Question: Do you have any plans to alter the number of KC-135 aircraft in the Air Guard and Reserve inventory?

Answer: Our short-term plan to increase the number of KC-135 aircraft assigned to Air Guard and Reserve units is near completion.

[deleted]

The option to change the size of aircraft inventory assigned to Air Guard and Reserve units should always be available to meet national defense requirements.

Question: If the inventory of Air Reserve Force tankers is increased, do you support modifying these aircraft into the "E" configuration?

Answer: In the near term, yes. The KC-135E provides us an excellent capability. However, for any potential future transfers, R model aircraft will be a basic part of the study and decision process. The KC-135R consumes less fuel than the KC-135E and increases off-load capability. Increases in operational flexibility and the inherent decrease in operation and maintenance costs associated with the CFM56 engine support modification of the entire C-135 fleet to the R model configuration.

B-1B BOMBER OPERATIONAL TESTING PROBLEMS

General Chain, the effort to fix the B-1B's troubled electronic countermeasures (ECM) suite still has failed to correct persistent deficiencies. Although there have been improvements, the

Performance of the Central Integrated Test System (CITS), needed for proper in-flight system selection and maintenance, remains unsatisfactory.

Question: How does the Air Force intend to fix this particular set of problems?

Answer: The Air Force plan to fix the B-1's ECM suite is twofold: a CORE ALQ-161 system and added AF Common Radar Warning Receiver (RWR). The goal of CORE is to increase system maintainability, including CITS, and ensure reliable performance against SAC's top threats. The CORE program schedule consists of incremental software drops and one major hardware/software retrofit. The primary functions of CITS is to detect failures and isolate faults. CITS was not designed to provide in-flight system selection (availability). Failure/fault status will provide aircrews with valuable inflight information. An assessment of the full CORE performance is premature since field testing of this system has not yet begun. The second part of the plan, the addition of an RWR, is operationally important since it [Deleted] However, essential risk reduction integration studies are restricted until FY91 by the FY90 Appropriations Act.

Question: The Defense Director of Operational Test and Evaluation reported in February that the B-1B's predicted mission capable rate of 64.5 percent was significantly below the Strategic Air Command's requirement of 80 percent. Why does the B-1B fall so far below the requirement in this essential category?

Answer: The B-1B is a maturing weapon system. The 80 percent mission capable (MC) rate is the mature weapon system goal. SAC and AFLC have agreed to a 60 percent MC rate as realistic and supportable for FY90. We expect to achieve that rate as we achieved last year's goal of 55 percent. This measured increase of 5 percent each year reflects the realities of deliveries of initial spares, the maintenance learning curve, increased organic support and growing confidence in our abilities.

Maturity is generally defined at 200,000 flight hours for the B-1B. At the present rate of flying, we will reach maturity in late FY94 or early FY95. Eighty percent MC rates are achievable unless important logistics support equipment and technical data go unfunded.

Question: The Director of Operational Test and Evaluation also reported that the mission reliability and availability of the B-1B did not meet the requirements of the Strategic Air Command. Among the deficiencies cited were numerous in-flight critical failures of the navigation, air conditioning, ice and rain protection, and autopilot systems.

How does the Air Force intend to fix these problems?

Answer: The February report cited was a rebrief of the Sep 89 Air Force Operational Test and Evaluation Center (AFOTEC) final report. The report stated the following system deficiencies: insufficient cooling air and contaminants in the offensive radar environmental system, problems with the air conditioner fuel cooling scoops, 83 percent of the critical failures for ice/rain (vane electrical heater system controller caused indications of system failure) were CND (could not duplicate), and the inertial navigation system (INS) and autopilot system had high CND and retest-OK rates. A Material Improvement/Service Report Program (MIP/SR) was written against each of these items and is being tracked by ASD/B1 and OC-ALC.

Progress has been made in correcting each deficiency identified in the AFOTEC report. Preliminary tests indicate the radar cooling air meets specification. Most cooling air problems were on the ground; therefore, to avoid potential problems, radar operation while on the ground is minimized. OC-ALC is investigating methods to eliminate system contamination. Problems with the air conditioner fuel cooling scoops and the vane electrical heater controllers have been resolved. Regarding the systems with high CND rates, OC-ALC is conducting studies with sustaining engineering funds to resolve these problems.

Question: DoD's independent operational testers concluded that the B-1B's Instrumented Landing System (ILS) is operationally unacceptable for restricted visibility instrument approaches. Below 400 feet, the system exceeds safe and reasonable levels.

How will the Air Force fix this flight safety problem?

Answer: This was a problem with the original vertical situation display software and resulted from use of nontraditional symbology to depict ILS information. Because of this deficiency, the B-1B was not initially certified for ILS instrument approaches below localizer minimums. However, a fleet-wide modification that provides full instrument landing capability to the B-1B was completed in November 1989.

QUESTION SUBMITTED TO GENERAL CHAIN BY SENATOR BYRD

B-2 STRATEGIC BOMBERS

Question: The Air Force asserts that it needs 132 B-2 bombers to meet US targeting requirements under the Strategic Arms Reduction Treaty (START), given the B-2's intended ability to penetrate Soviet air defenses and the START provision that counts each penetrating bomber as one warhead (even though the B-2 may carry 20 warheads). However, the B-2 program has been challenged because of its cost, the reduced Soviet threat, and questions about the numbers and types of new strategic systems that will be needed. What is the current rationale for 132 B-2 bombers, how is this being modified by the Administration (75 B-2 bombers), and what would be the consequence if the United States procured as few as 50 B-2s? Please include in your response a discussion of the prospects for a substantial upgrading of Soviet air defenses during the 1990s, given the Soviet Union's internal problems and economic difficulties.

Answer: One hundred thirty two B-2s would give us approximately the same target coverage as we have in today's SIOP; this statement makes it obvious that anything less than 132 would give us less target coverage, and thus less deterrence, less warfighting capability, and less credibility in the minds of the Soviets. Strategic modernization, to include the B-2, maintains the capabilities of the Triad at levels comparable to those we have today.

While 132 B-2s are preferred, some changes in the target base appear likely due to the effect of the INF treaty, possible reductions due to START, and the [Deleted]. As these reductions materialize, we may be able to achieve target coverage and flexibility similar to current levels with only 75 TAI B-2s [Deleted].

If the US procured as few as 50 B-2s, we would be below the minimum target coverage required by guidance even with the reductions in the target base mentioned above. Our warfighting capabilities would be seriously reduced; therefore, I could no longer support the current START framework. In addition, a force limited to this size may not be efficient to support from a logistical standpoint.

Although the Soviets are cutting back in expenditures on conventional systems and making some adjustments in strategic offensive forces to accommodate a likely START treaty, [Deleted] it is possible the Soviets may even divert resources to the defensive arena following cutbacks, either unilaterally or resulting from arms control agreements. Although no major breakthroughs are expected in technologies, we do expect significant upgrades in capabilities as the Soviets field more improved fourth generation fighters, AWACs, tankers, and improved radars. These projected upgrades to the Soviet air defense system are likely to continue even in the face of internal political economic problems. The US cannot afford, from a nuclear deterrence standpoint, to buy less than 75 B-2s and I will not support START in its current framework with less than 75 B-2s.

QUESTIONS SUBMITTED TO GENERAL CHAIN BY SENATOR LEAHY

Question: General, Secretary Cheney recently announced that the Air Force will reduce the B-2 bomber buy to 75 planes down from 132. Could you please provide me with the updated purchasing schedule including an annual breakdown of procurement, R&D, military construction. How many planes will be purchased each year? How long will the procurement of 75 planes last?

Answer: Secretary Cheney's announcement of a proposed B-2 procurement of 75 aircraft came after a major review of the projected requirements for all types of aircraft. Many issues related to your areas of concern are still being examined as part of the FY92 POM build and have not yet been resolved. The DOD is actively addressing these issues and will respond in the most timely manner possible.

Question: General, everyone is amazed by the events that have taken place in Eastern Europe and the Soviet Union over the past year. I would like to know whether the SIOP has been revised since these events. When was the latest review of the SIOP and how frequently do reviews occur? Has the SIOP target base been reduced? If so, what was the previous target base and what is the current target base?

Answer: Each SIOP is prepared over an 18-month cycle for implementation [Deleted]

The SIOP is regularly and closely monitored by the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and selected members of their staffs. The close scrutiny of the SIOP provides the capability to accommodate changes in the threat in our nuclear policy and plans.

QUESTIONS SUBMITTED TO GENERAL CHAIN BY SENATOR BUMPERS

B-2 AND SOVIET AIR DEFENSES

Question: Much of your rationale for the B-2 assumes a growing Soviet air defense challenge. If the Soviets tail off in their deployment of advanced air defenses in the next 2-3 years, how would this affect the need for the B-2?

Answer: We have seen no significant change in current or forecast Soviet air defenses which would obviate the need for the B-2, nor would an unanticipated curtailment of some Soviet defensive deployments negate the need for the B-2. The only changes to projections made in the early 1980s on Soviet air defenses are estimates on the rapidity with which improvements will occur. Some defensive systems have not matured as rapidly as we anticipated and projected IOCs have been postponed. In other cases, the deployed numbers of new systems have not increased as rapidly as we projected. But we have not seen any projected major air defense weapons programs cancelled. While Soviet defensive improvements have not always occurred as rapidly as anticipated, they have improved steadily and will continue to improve. Any unanticipated Soviet curtailments will only slow this process.

Eventually, the B-1 will be forced to fly at low altitude earlier in its penetration route and will be denied more areas of the Soviet Union. This will drastically reduce the number of targets suitable for B-1 attack. [Deleted]

SOVIET AIR DEFENSES

Question: Can you provide on an unclassified basis any detail on the improvements you expect to see in Soviet air defenses? Is there an intelligence community consensus that such improvements will take place? Roughly how much will it cost the Soviets to build the improved air defense system you foresee? How realistic is it to believe they can afford such investment in view of their severe economic problems?

Answer: Unfortunately, there is little meaningful detail at the unclassified level. [Deleted]

The Soviets have noted in various open-source articles the deficiencies in their air defense system, both to counter the current US strategic threat (e.g., ALCM and low-altitude penetration) and future systems such as stealthy aircraft. These articles quote Western sources, detailing various methods to counter both the cruise missile and stealthy platforms. [Deleted]

However, based on historical precedence and Soviet open-source comments, it appears they will dedicate necessary resources

TARGETING REQUIREMENTS

Question: Conceptions of what deters today should be a lot different than what they were a few years ago, given all the change that has taken place in the world. Can we substantially reduce the number of targets on the target list, and shouldn't we consider reducing the "damage expectancy" we require against the various categories of targets?

Answer: Even in a world of constant change, conceptions of what deters remains substantially the same. What may have changed in the deterrent equation is the level of military capability necessary to successfully prevent the outbreak of war. As an aside, the more varied threats one faces (in addition to the Soviet threat) the more difficult deterrence becomes.

The number of targets in today's SIOP is based on the national nuclear weapon employment policy. The SIOP is regularly and closely monitored by the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and selected members of their staffs. The close scrutiny of the SIOP provides the capability to accommodate changes in the threat in our nuclear policy and plans.

MOBILE TARGETS

Question: You say in your statement that "a penetrating bomber is the only weapon system that has the ability and the capability to be enhanced to hold mobile targets at risk." What might we need to do to give our penetrating bombers that capability? What might it cost to deploy all the components of such a system (e.g., satellite sensors, data links, computers)?

Answer: First, we need to assure the ability to penetrate Soviet defenses enroute to the assigned targets. While the B-1 and B-52 can penetrate today, the B-2 will give SAC forces that assured defense penetration capability in the future.

Then, in the target areas, we will require an all-weather, day/night sensor [deleted]

To help the aircrew process the large amount of incoming sensor data, we require [Deleted]

and improve their ability to detect, identify and target mobile missiles. Another requirement is a continued intelligence focus [Deleted]

We don't yet know what such a system would cost because we are still learning just what such a system of bomber sensors, processing and intelligence capabilities should be to yield the effectiveness we require. We do have an Air Force program, the Relocatable Target (RT) Capability Program, which is structured to develop those sensors, processors, and associated algorithms necessary for the RT mission.

B-52Gs

Question: If SAC does not get as many B-2s as you would like, would SAC want to hold on to some B-52Gs to make up the difference? Are you still interested in putting new high-bypass ratio jet engines on some Gs, which would substantially increase bomber range and reduce operating costs? What other advantages would re-engining provide?

Answer: B-52Gs cannot replace the B-2. They do not provide the equivalent warfighting capability in terms of the types or numbers of targets they can hold at risk nor do they provide the leverage needed in a START environment. Within the current START framework, each ALCM B-52G's weapons would count the same as 10 B-2s while providing 148 fewer weapons. B-52G aircraft cannot "make up the difference" in penetrating capability, flexibility, and target coverage that B-2 aircraft will provide.

Replacing the existing J-57 engines on B-52G aircraft with modern high-bypass ratio engines would dramatically increase their range, loiter time, and flexibility while significantly reducing operations and support costs. This would enhance their utility for conventional operations but does little to improve nuclear capability. I have enough spare engines and parts from retiring aircraft to support the planned B-52G force structure. Considering this and the relative warfighting contribution of systems such as the B-2, I have to put my funding priority on the B-2 to maximize deterrence.

QUESTIONS SUBMITTED TO GENERAL CHAIN BY SENATOR D'AMATO

STRATEGIC BOMBERS

Question: How will the reduction in the buy of B-2s from 132 to 75 affect the bomber master plan? Will the retirement of B-52Gs be slowed? Will the transfer of FB-111As to the tactical air command be slowed or reversed? Will the Air Force put greater emphasis on B-1B upgrades?

Answer: By 1999, with only 75 TAI B-2s, the US will have the lowest number of strategic heavy bombers since the years before World War II. However, the mix of B-52Hs with ACMs, B-1Bs and B-2s will provide a highly capable, modernized force that can maintain capability into the outyears. The projected upgrades to the Soviet air defense system will likely continue even in the face of internal political and economic problems. As such, the US cannot afford, from a nuclear deterrence standpoint, to buy less than 75 B-2s, and I will not support START in its current framework with less than 75 B-2s. [Deleted]

The Air Force has no plans to slow the retirement of the B-52Gs or to delay the transfer of FB-111As to the Tactical Air Forces. The Air Force will put more emphasis on upgrades to the B-1B.

INTERCONTINENTAL BALLISTIC MISSILES

Question: How will the alert rates for the Rail Garrison MX and Small ICBM compare with the Minuteman II, Minuteman III, and silo-based MX?

Answer: Peacekeeper Rail Garrison (PKRG) on alert in garrison and Small ICBM (SICBM) in its shelter would have alert rates which our current fixed ICBM rates. Once PKRG or SICBM dispersed, alert rates would be

Question: Who will have the authority to flush mobile ICBMs?

Answer: CINCSAC and other higher authorities will have the authority to disperse mobile ICBMs.

Question: If the Minuteman II is retired, what system will deploy the emergency rocket communication system (ERCS)?

Answer: The JCS have approved [Deleted]

will be concurrent with deployment of new communication systems (Single Channel Transponder Injection Subsystems, Dual Modem Phase I and II upgrades, ICBM SHF Satellite Terminal, Ground Wave Emergency Network and Miniature Receiver Terminal) which will ensure no strategic connectivity gap. Consequently, [Deleted]

Question: How has the target set that forms the basis for the Single Integrated Operating Plan (SIOP) changed with the collapse of the Warsaw Pact?

Answer: The target set that forms the basis for the SIOP has not changed significantly with the collapse of the Warsaw Pact. The present SIOP was implemented

A majority of the weapons in the SIOP are assigned to targets in the USSR. The changes in the USSR and Eastern Europe have not eliminated the need to target these threats.

The SIOP is regularly and closely monitored by the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, and selected members of their staffs. The close scrutiny of the SIOP provides the capability to accommodate changes in the threat in our nuclear policy and plans.

Question: Are these changes reflected in the current requirements for the Rail Garrison MX, Small ICBM, B-2, Trident submarines, and the Trident D-5 SLBM?

Answer: Yes, the recent changes in the Soviet Union and Eastern Europe, as well as budgetary constraints, have been considered in reviewing the requirements for these systems. I'm pleased to see the direction of these political and social changes in that region. However, from the strategic perspective, I must remain prudently cautious. It takes years to develop and deploy new systems. We cannot change requirements every time the geopolitical wind shifts. Rather, we must take a longer view to ensure our deterrent strength does not erode. It does not make sense to further reduce our capability at a time when the Soviets' strategic offensive and defensive capabilities continue to grow.

SUBCOMMITTEE RECESS

Senator Inouye. I thank you very much, and now we will move into open session to examine the SDI, and we will pause as we shift chairs now.

[Whereupon, at 11:30 a.m., the subcommittee was recessed, to reconvene immediately in open session.]

Strategic Defense Initiative

STATEMENT OF LT. GEN. GEORGE L. MONAHAN, JR., DIRECTOR, STRATEGIC DEFENSE INITIATIVE ORGANIZATION

OPENING REMARKS OF SENATOR INOUYE

Senator **Inouye**. The subcommittee now is in open session to examine the strategic defense initiative [SDI] program, and as I mentioned in my opening statement, there are many important issues and questions concerning SDI. Our witness this morning is the Director of the Strategic Defense Initiative Organization, Lt. Gen. George L. Monahan, Jr.

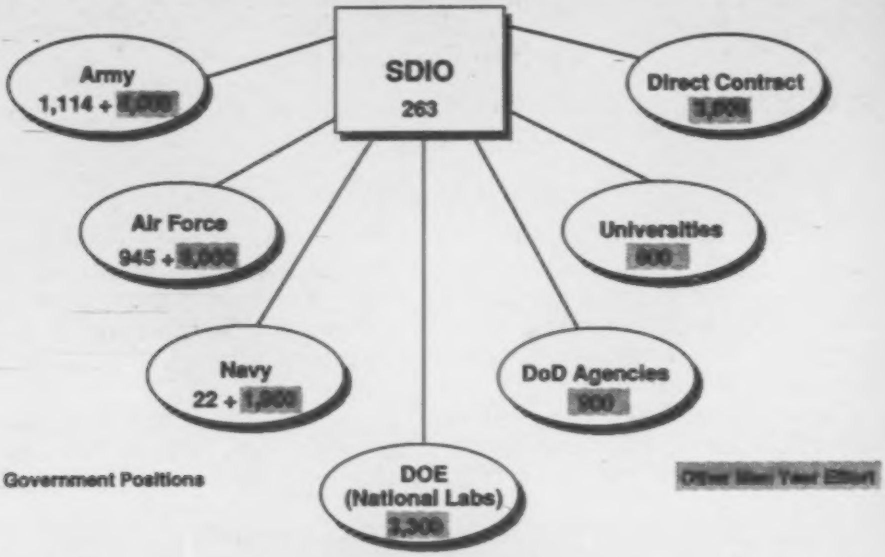
General, we have received your prepared statement and, without objection, those statements, together with your briefing charts will be made part of the record. So you may proceed as you wish, sir.

PRESENTATION OF GENERAL MONAHAN

General **Monahan**. Thank you very much, Mr. Chairman. It is a pleasure for me to once again appear before this subcommittee and thank you for allowing me to submit my statement for the record.

Regarding the briefing charts, I do not want to take too much of your time, so I would like to go through some of them rather quickly because I think it gives a good summary of where we stand today.

COORDINATED NATIONAL EFFORT



SDIO
263
Army
1,114 + 8,000
Direct Contract
3,000
Air Force
945 + 8,000
Universities
900
Navy
22 + 1,900
DoD Agencies
900
DOE
(National Labs)
3,300
Government Positions
Other Man Year Effort

Approximately 28,000 Man Years

So if we could do this quickly, and I will proceed through. Just a quick note, we have about 28,000 people around the country that are working on the program today, people in the Army, the Air Force, the Department of Energy, National Labs, et cetera.

FY 91 PROGRAM

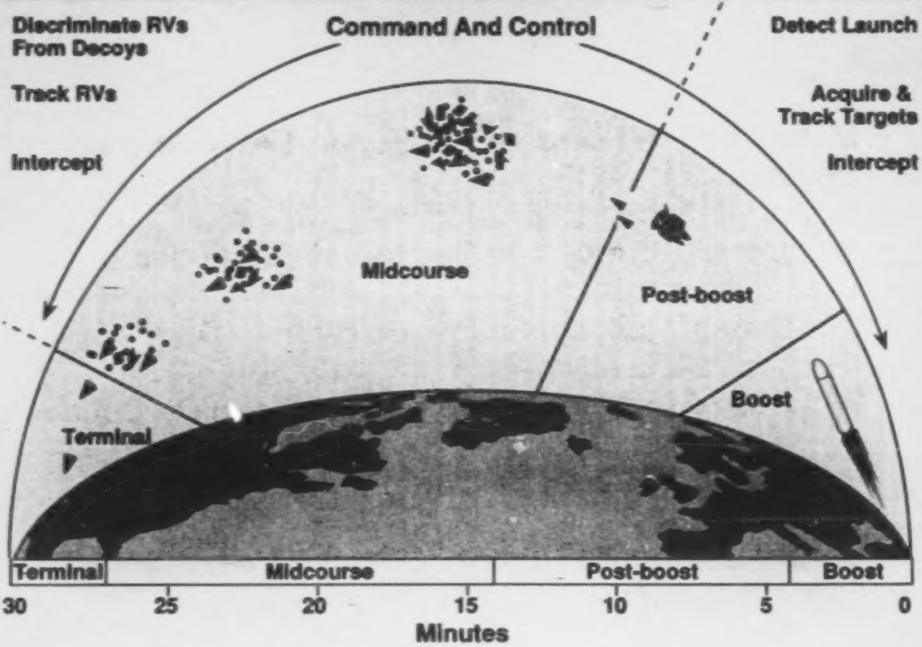
- Maintains Real Options To Support An Informed Decision
- Balances Ground- And Space-based Elements
- Continues Work On Follow-on System Options
- Initiates FSD Of Treaty Compliant BSTS On Schedule
- Initiates Pre-FSD Of Brilliant Pebbles
- Conducts Record Number Of Major Tests And Experiments (16)

These are the things I am going to be talking about. I will talk about the options that we are putting forward that will be available for the President to make a decision on the system within the next 2 or 3 years. This is a balance of ground- and space-based elements, as well as looking out to the future for directed energy weapons in the future.

Starting in 1991, we are going to start full-scale development of the BSTS Program. I will explain that a little bit more and the Pre-FSD of the Brilliant Pebbles and then a number of major tests and experiments.

Next chart.

BALLISTIC MISSILE DEFENSE CHALLENGES


Discriminate RVs From Decoys
Command And Control
Detect Launch
Track RVs
Acquire & Track Targets
Intercept
Intercept
Midcourse
Post-boost
Boost
Terminal
Terminal
Midcourse
Post-boost
Boost
30
25
20
15
10
5
0
Minutes

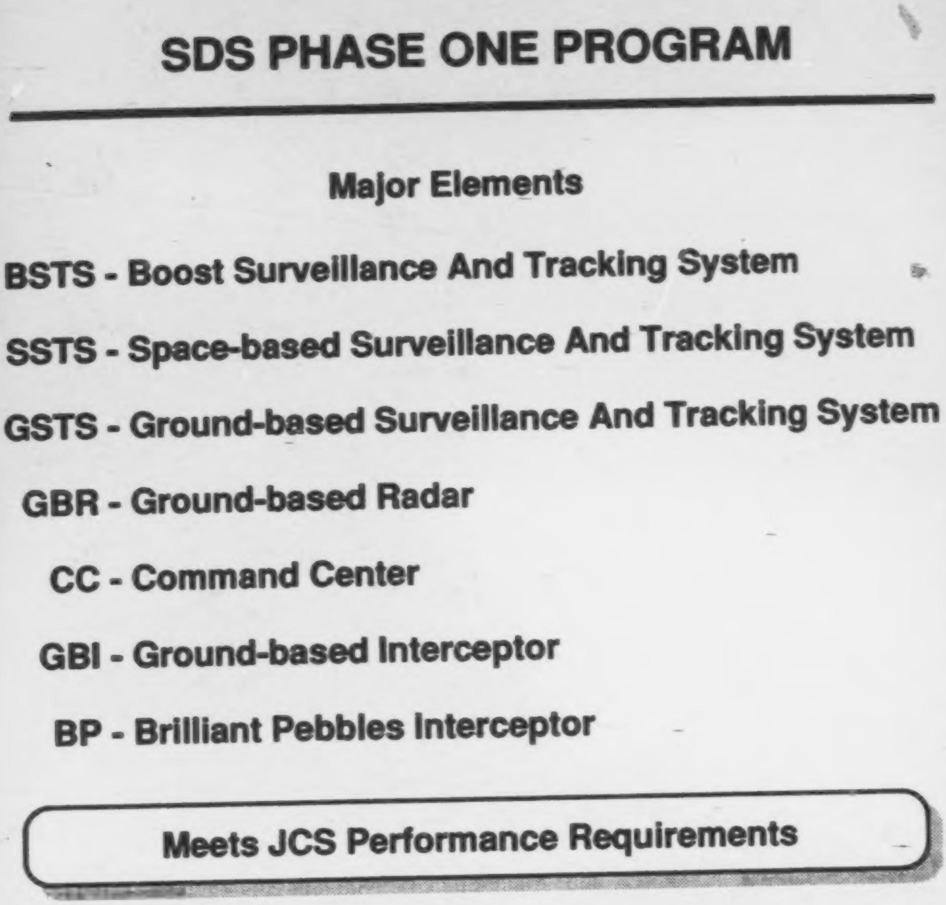
Just to set the stage, I remind you once again of the four phases of the flight of a ballistic missile, and this is important in understanding the system. The boost phase is the very lucrative time to strike and, of course, intercept the SS–18, for example. It has 10 warheads; it would have all 10 warheads on board in this phase.

The challenge, though, is that this phase of the trajectory is very short. It lasts anywhere from about 3 to 5 minutes.

Then in the postboost phase, the warheads are being dropped off the postboost vehicle or the bus, again, a good time to intercept. The missile does not have as bright a rocket plume anymore and is not as big a target, but, nevertheless, we have the advantage of getting several warheads with one shot.

Then in the midcourse phase there is a lot time to intercept. There is a lot of time to make decisions, but there is the possible complication that decoys would be present with the reentry vehicle. So we have to be able to discriminate between the reentry vehicles and the decoys.

Finally, in the terminal phase of flight, the decoys are stripped away by the atmosphere, but now the time of flight is very, very short, so our intercept activity has to take place very quickly and then there are difficult atmospheric effects that have to be dealt with.



SDS PHASE ONE PROGRAM

Major Elements

BSTS - Boost Surveillance And Tracking System

SSTS - Space-based Surveillance And Tracking System

GSTS - Ground-based Surveillance And Tracking System

GBR - Ground-based Radar

CC - Command Center

GBI - Ground-based Interceptor

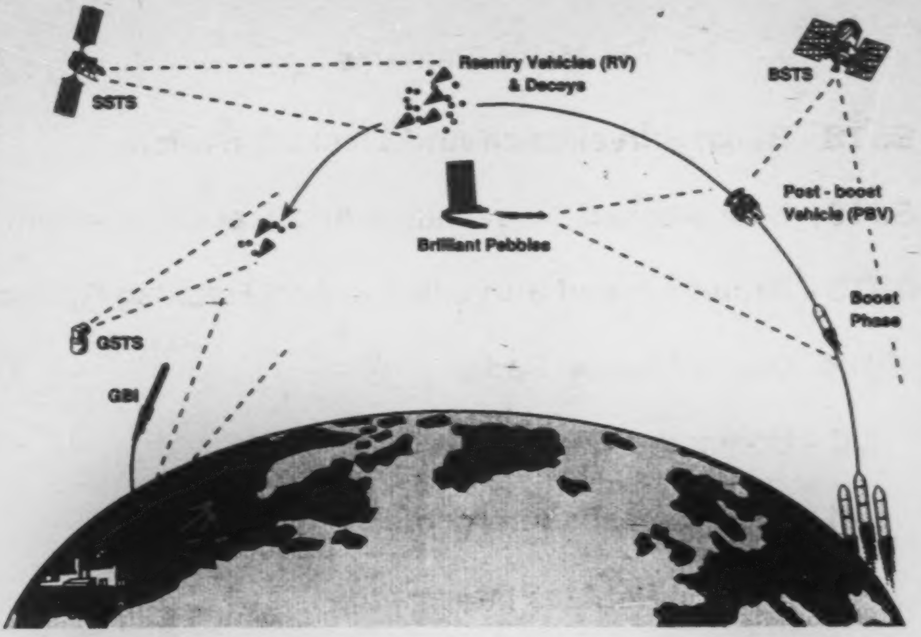
BP - Brilliant Pebbles Interceptor

Meets JCS Performance Requirements

We have a lot of alphabet soup, but just suffice it to say that the first three items up there—I am going to be describing these—are infrared sensors, then there is radar, a command center and a ground-based and space-based interceptors.

So those are the major components: sensors, a command center, and then interceptors in the program.

SDS PHASE I ARCHITECTURE



Briefly, this is the architecture that we are proceeding with at the present time for the first phase of the program.

The BSTS, boost surveillance and tracking system satellite is the one that performs tactical warning and attack assessment for the Nation, as well as participating in ballistic missile defense. As a matter of fact, its primary role, now that we have adopted Brilliant Pebbles, is to do tactical warning and attack assessment.

In that role, it replaces the DSP satellites that are currently performing that particular mission. The BSTS, of course, does it in a much improved way with much greater sensitivity, and, very importantly, because the BSTS does data processing on board the satellite, we are able to get rid of very vulnerable ground stations, ground stations that are overseas.

The SSTS satellite is in a much nearer Earth orbit than the BSTS. It looks across the Earth's limb and gets a very close look at clusters of reentry vehicles and decoys to assist in the discrimination problem.

Now rounding out the space-based side of the architecture are the Brilliant Pebbles interceptors themselves. I am going to explain those in more detail later on. Over on the left-hand side of the chart, the ground-based part of the architecture, the GSTS, the ground surveillance and tracking system, is a suborbital probe that has a sensor very similar to SSTS that gets up very close to clusters of reentry vehicles and decoys to discriminate.

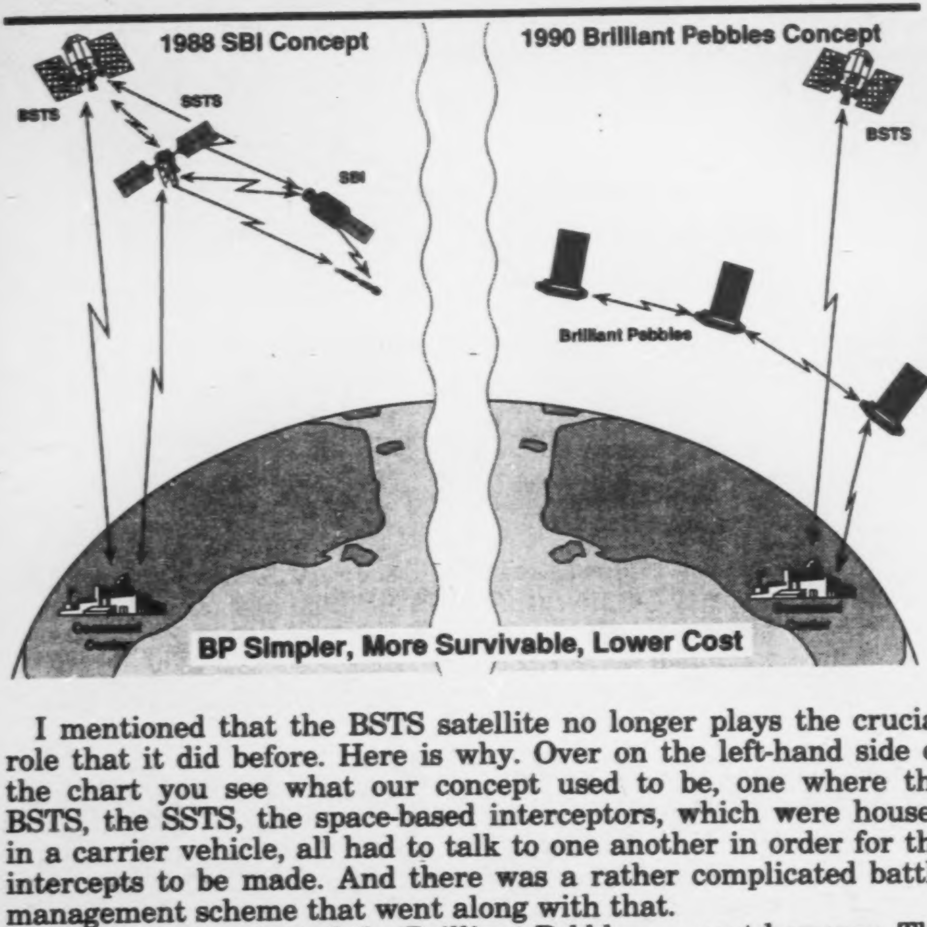
Ground-based radar also operates to work the discrimination problem. Finally, the ground-based interceptor which is a kinetic kill vehicle, in other words, has no warhead on board, same as the

Brilliant Pebble, is there to intercept the reentry vehicles while they are still outside the atmosphere.

Finally, there is a command center which will have both mobile and fixed elements for purposes of survivability.

Next chart.

BOOST PHASE ENGAGEMENT



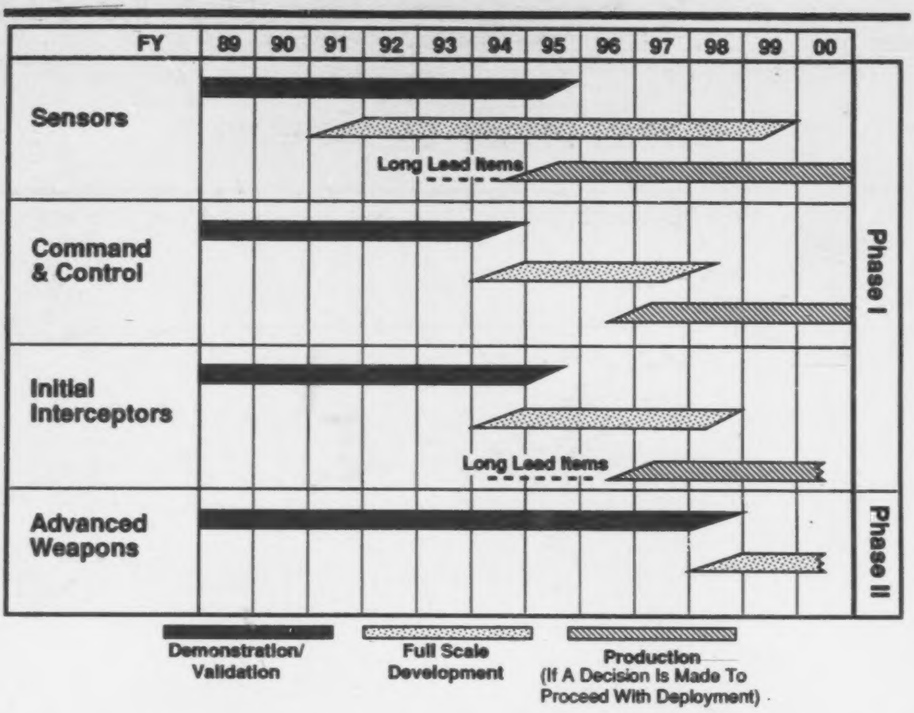
BP Simpler, More Survivable, Lower Cost

I mentioned that the BSTS satellite no longer plays the crucial role that it did before. Here is why. Over on the left-hand side of the chart you see what our concept used to be, one where the BSTS, the SSTS, the space-based interceptors, which were housed in a carrier vehicle, all had to talk to one another in order for the intercepts to be made. And there was a rather complicated battle management scheme that went along with that.

We now have adopted the Brilliant Pebbles concept however. The Pebbles have the capability to perform surveillance, target detection, target tracking, and intercept, all on their own, with the exception that man has to be in the loop to initiate the intercept phase for the Brilliant Pebbles. And because of that we greatly simplify the battle management and command and control system and also make the system less costly.

Next chart.

SDS PROGRAM SCHEDULE

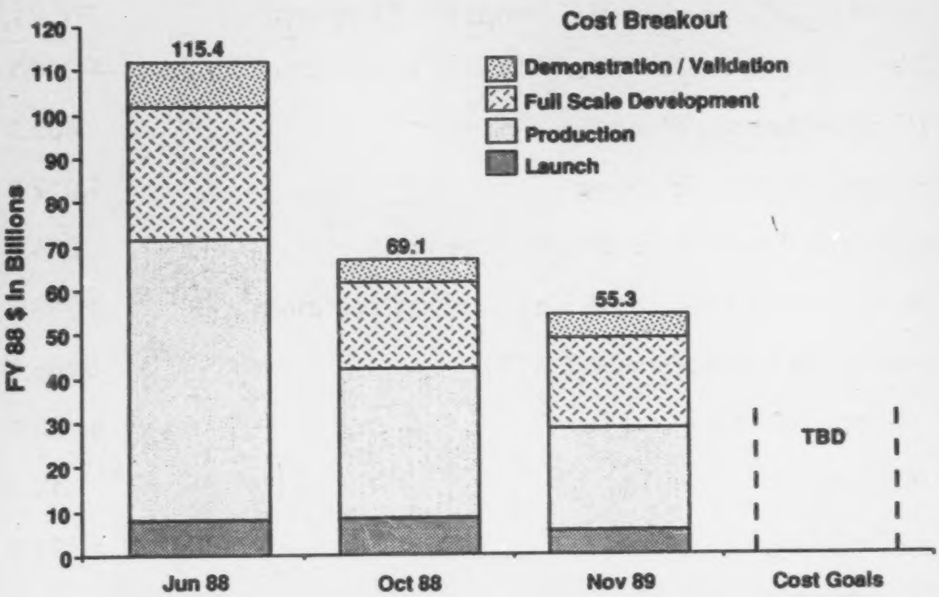


Just a quick look at a schedule that is unclassified. You will note the green color there is the full-scale development. That I think is very key to this as to when we would start full-scale development and when we would start production.

You will note with the sensors that it starts in 1991, and that is because of the BSTS sensor, which I said is there primarily for purposes of tactical warning and attack assessment.

The command and control and the initial interceptors would start their full-scale development periods out in about 1993 or 1994. The bottom line is that we have an option today to deploy the initial interceptors later in the 1990's, so we could still begin deployment of the system before the year 2000.

SDS PHASE I COST REDUCTIONS



Costs, because we have adopted the Brilliant Pebbles concept, have reduced some for the first phase of the system. Last year we were looking at a system of about $69 billion. Now with adopting Brilliant Pebbles, that has been reduced to $55 billion.

Next chart.

STRATEGIC DEFENSE INITIATIVE FY 91 PROGRAM

($ In Millions)

RDT&E Program Elements	FY 91
Surveillance, Acquisition, Tracking & Kill Assessment	1,306.7
Directed Energy Weapons	802.9
Kinetic Energy Weapons	1,017.7
Systems Analysis / Battle Management	674.0
Survivability, Lethality & Key Support Technologies	393.6
Full Scale Development (BSTS)	265.0
Total RDT&E	4,460.0
MILCON	11.4
DoD Total	4,471.4
DoE SDIO	191.9
DoD / SDIO	4,663.3

I just want to get this chart in for the record, because it shows within the various program elements the funds that make up the $4.5 billion for the DOD part of the program and about another $250 million for the DOE part of the program for next year.

Next chart.

FY 90-91 PROGRAM CHANGES

($ In Millions)

	FY 90	FY 91
Phase I	1688.0	2350.6
Follow-on	840.2	984.4
Key Technologies	284.7	337.1
Operational Support / Mgmt	261.4	239.7
Test & Evaluation	189.5	217.3
Theater Defense	124.7	131.8
IS&T / SBIR	113.4	116.8
Engineering Analysis	102.9	93.7
Total	$3604.8	$4471.4

Includes MILCON

This one, though, is of a little bit more interest. It just shows where the majority of funds would, in a functional sense, be allocated next year. The first phase of the program receives more funds, and that is for proceeding with, not only the Brilliant Pebbles, but also with the ground-based interceptors, such that it would be possible to field the system still within the 1990's.

The follow-on are the funds that are associated with our directed energy weapons primarily. In operational support of management that we intend to reduce our funding this next year because we are working some more efficient methods of conducting our management of the program. For example, we have reduced the funds for our SETA contractors, the systems engineering and technical assistance, by about 20 percent.

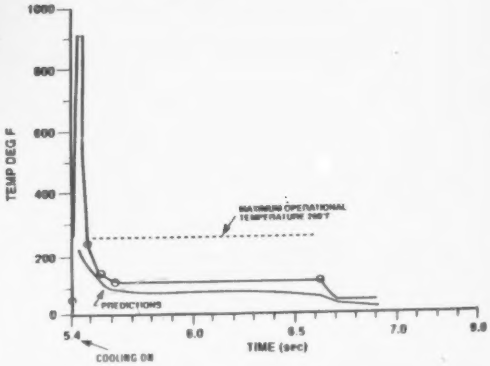
Next chart.

HEDI PROGRAM

1ST FLIGHT TEST 26 JAN 90

TECHNOLOGY ACHIEVEMENTS

- SHROUD REMOVAL AT HIGH DYNAMIC PRESSURE
- FOREBODY AND WINDOW COOLING
- WARHEAD DETONATION

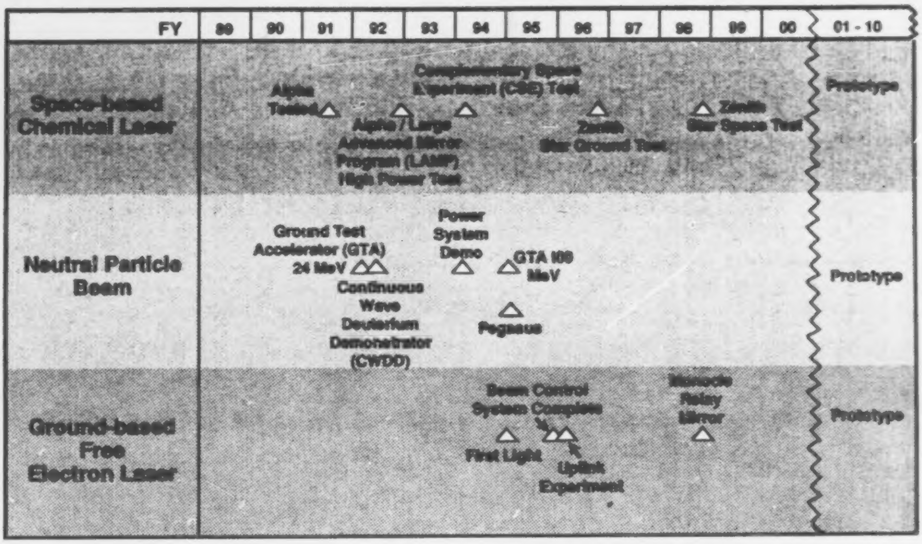


This is just a brief review then of the follow-on elements. I have concentrated on the first phase. Now let us talk about further out in the future. The HEDI is an endoatmospheric interceptor; that is, it intercepts within the atmosphere. The next three items are directed energy weapons and then, finally, hypervelocity gun program.

In HEDI, we had a very significant test in January of this year in which we had the first flight test of the HEDI. One very significant part of it was that the window that covers the sensor has to be cooled down to somewhere in the vicinity of about 260 degrees and we were able to cool it down considerably below that, down to about 140, and that was a real breakthrough because we really did not know whether it would be possible to do that.

Next chart.

DIRECTED ENERGY PROGRAM



The first directed energy program that I would like to discuss is the neutral particle beam, the BEAR experiment. That means beam experiment aboard rocket, and in that experiment last July we operated the neutral particle beam in space for the first time and in a very, very successful test. The particle beam was generated properly, it propagated properly, and behaved as predicted.

Another directed energy weapon that would be in space would be the space-based chemical laser. Shown there in the middle is the test set up at San Juan Capistrano in California, and in the middle lower right hand corner is the laser itself. We conducted a very successful test on the ground in the simulated test facility at San Juan so far.

But because of funding limitations, it will be in the late 1990's before we would orbit just a test satellite of this nature.

The final directed energy program is the ground-based free electron laser. Shown in the middle is the test site that is being put together down at White Sands, NM, so we can proceed with proper research. And that is primarily what we will be doing next year, we will be working on getting the infrastructure put together at the test facility.

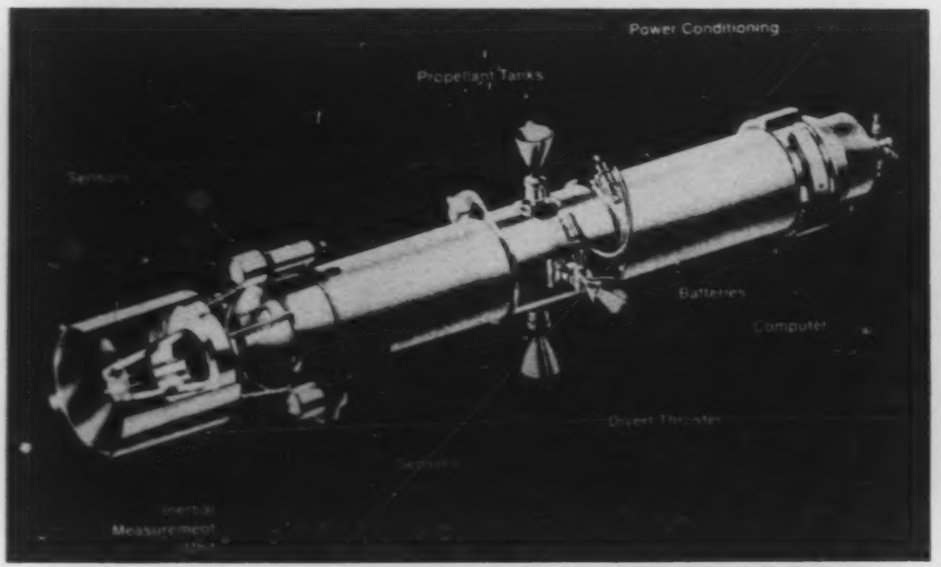
Let me just wrap it up this way, and concentrate your attention over on the right-hand side of the chart and simply say that for all of these directed energy weapons, the chemical laser, the neutral particle beam, the ground-based free electron laser, that it is some time out after the turn of the century before we could have weapons-grade prototypes of any of these systems.

As a matter of fact, I think it is probably closer to the year 2005 and 2010, but it is constrained primarily by finances rather than by technical progress.

Let us talk just a little bit about Brilliant Pebbles and familiarize you with that. The Pebble, as shown here, weighs a little less than 100 pounds. It is about 1 meter long. It is shown in its life jacket with a solar array and in the four fuel tanks around the side of the interceptor that provide the axial propulsion.

If I go to the next chart, I can show just a few more details of the Pebble.

BRILLIANT PEBBLES INTERCEPTOR



The various sensors are infrared as well as ultraviolet and visible. There is a laser radar for purposes of communication and also to distinguish between missile hard bodies and missile plumes, and a star tracker that enables every Pebble to know where it is and know where it is going at all times.

The thing that makes this Pebble possible today is really miniaturization of these components. For example, those divert thrusters that you see there have thrust to weight ratios of about 1,200:1. About 10 or 12 years ago or 15 years ago, we could only have thrust-to-weight ratios of about 20:1. So this tremendous improvement in that kind of capability is what makes it possible.

DEFENSE SCIENCE BOARD REPORT ON BRILLIANT PEBBLES

- **No Fundamental Flaws Identified In The Brilliant Pebble Concept . . . Innovative And Capable**
- **Several Critical Issues Were Identified That Require Resolution . . . About Two Years**
  - **Pursue The Current Program To Maintain The Pace Of Innovation And Improvement . . . BP Design Is Not Complete**
  - **Maintain The Baseline SBI Program Until The Advantages & Disadvantages Of A BP System Architecture Are Quantified, And As An Aid To Improvement Of Both Designs**
  - **Conduct A Combined SBI / BP Flight Test Program**
  - **Evaluate The Impact Of BP On The SSTS And BSTS**

The Defense Science Board took a look at the Brilliant Pebbles concept last year at our request and they said they saw no fundamental flaws identified in the concept. They told us that they think we are a couple of years away before we have really proved out some of the technology.

Next chart.

BRILLIANT PEBBLES REVIEW JASONS' CONCLUSIONS

- **Endorsed Further Research On The Concept Of Proliferated Small, Lightweight, Smart Interceptors For Ballistic Missile Defense And Other Missions**
- **No Show Stoppers Were Identified; However, Several Problems Must Be Addressed**
- **Recommended Integration Of Promising SDI Technologies To Improve System Performance And Robustness**
- **Highlighted Issues Related To Radiation Hardening, Countermeasures And Performance Of Readily Available Technology; These Can Be Resolved In The Near Term By Analysis And Laboratory Tests**

Another group that we had look at it was the Jasons. The Jasons, a university group that gives good scrutiny to Department of Defense programs, looked at the program and said they saw no show stoppers. They gave us a lot of advice, though, on things that we ought to be looking at and we are very happy to get that.

Next chart.

BRILLIANT PEBBLES ACQUISITION APPROACH

Highly Streamlined Management Approach To Bring Industry Onboard

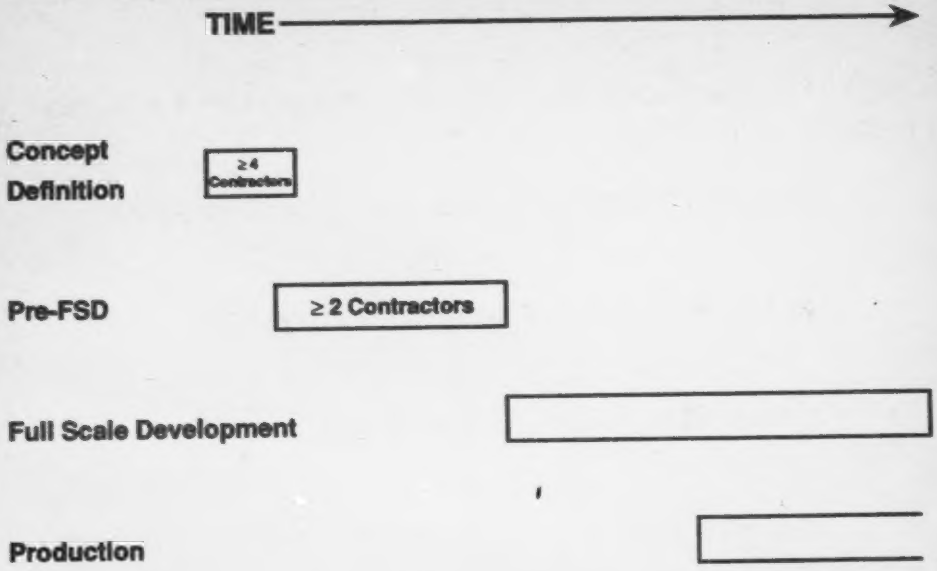
- **Maintain Simplicity And Low Cost Features**
- **No Mil Specs Or Standards In Pre-FSD**
- **Direct, Streamlined Reporting**
- **Encourage Industrial Innovation And Creativity**

With Brilliant Pebbles, we are going to take advantage of the defense management review that has been conducted within the Department of Defense and adopt a highly streamlined management approach that features some of the things that you see there.

For example, in the prefull-scale development phase we are not going to impose any mil specs or mil standards, rather we are going to tell the contractor what it is we need done in the way of performance and endurance and then leave it up to him to recommend to us just what those specs and standards are going to be.

Next chart.

PLANNED CONTRACT PHASES



TIME

Concept Definition ≥4 Contractors

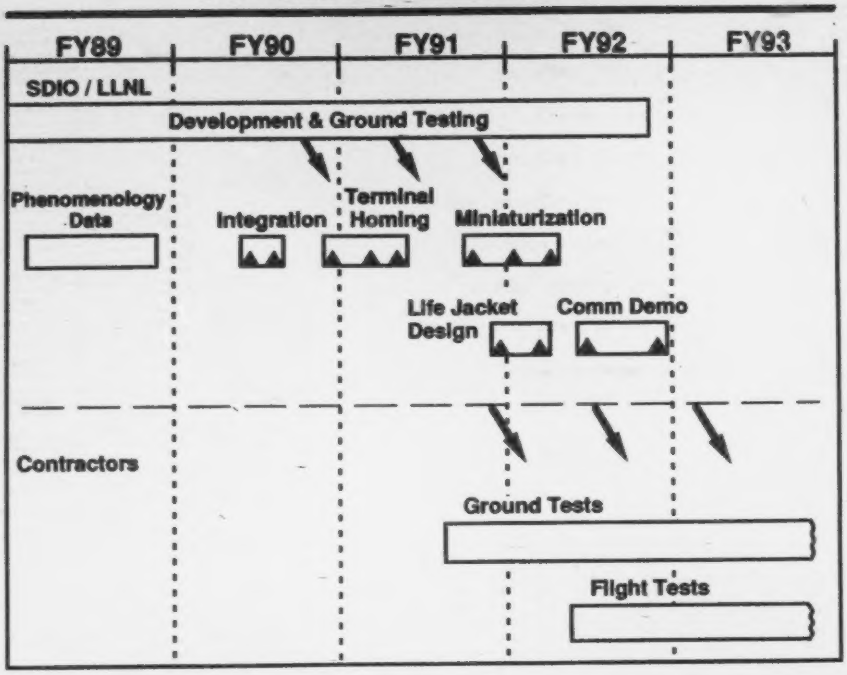
Pre-FSD ≥2 Contractors

Full Scale Development

Production

We are going to do this in a four-phased effort. We are about to start the concept definition at the present time, we will go into pre-full-scale development next year, full-scale development out in about the 1993 timeframe, and then finally in production a few years after that.

BRILLIANT PEBBLES INITIAL TEST PROGRAM

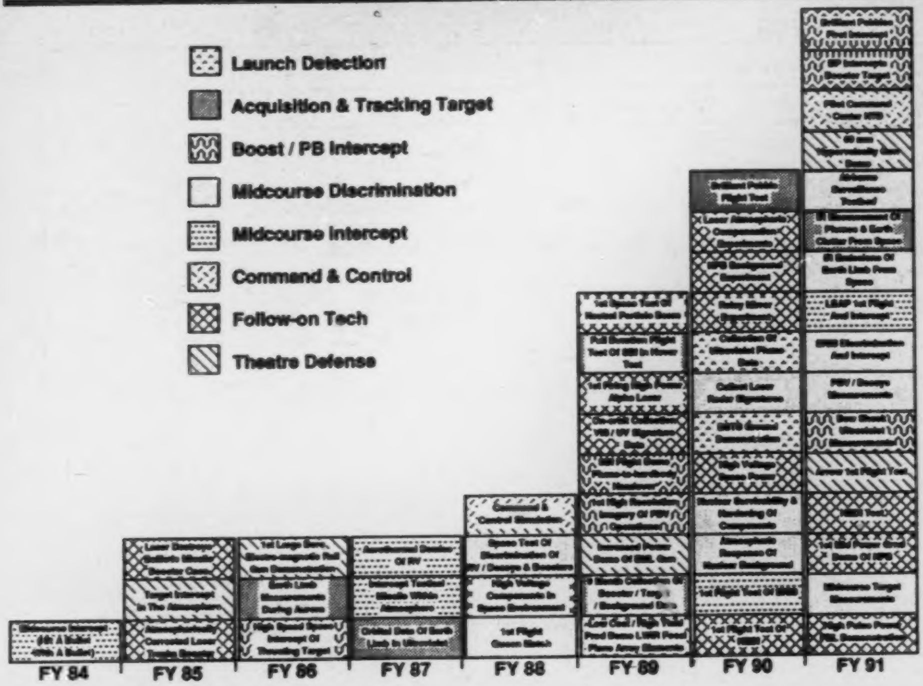


Here is a test program that before we bring those contractors on board, is being pursued by the Lawrence Livermore National Lab under our leadership. The test program as depicted here is designed to be compliant with the restrictive interpretation of the ABM Treaty.

The eight tests shown across the top are suborbital tests and, by the way, the first test flight will be taking place this summer. Those are suborbital. That keeps them compliant with the treaty. Then the life jacket design and the comm demo are orbital tests, but they do not have interceptors on board.

Finally, we will bring contractors on as you can see in the late 1991, 1992 timeframe, to conduct additional flight tests in this series leading to full-scale development in about the 1993 timeframe.

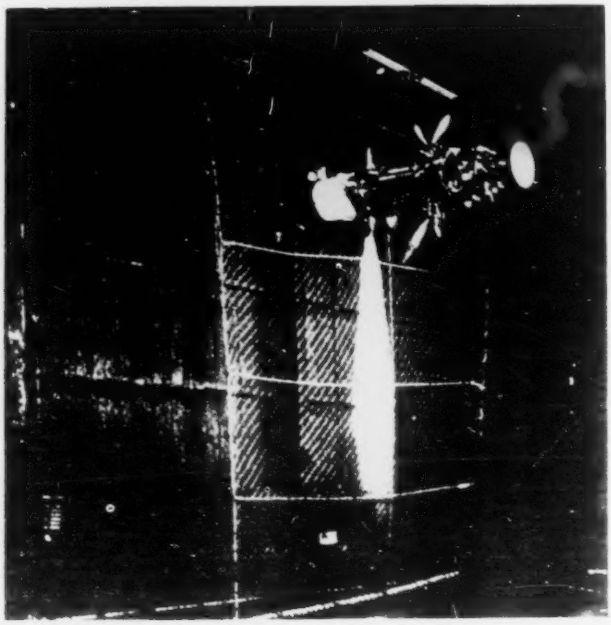
MAJOR TECHNICAL ACCOMPLISHMENTS



So much for some specifics about the phase I and follow-on phases of the program. I would like to talk to you a little bit about technology achievements because I think it is very important, and it is the one reason that I and many others these days are very confident that this technology is at hand to proceed with this program.

I know that you cannot read every word that is up there, but I simply want to demonstrate that major technical accomplishments, tests, and experiments have expanded rapidly over the last couple of years and we are looking at even more for fiscal year 1991. That shows that the program is really getting more off the drawing board and out of the design tables and out of the labs and finally to where major tests and experiments have been put together.

ON TARGET FREE FLIGHT



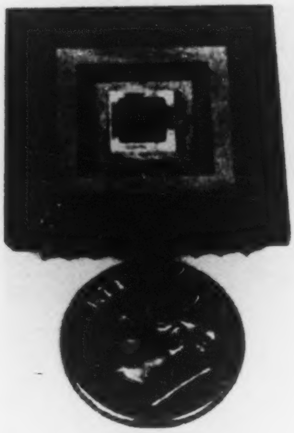
TECHNOLOGY ACHIEVEMENTS

- ALL FUNCTIONS INTEGRATED ON-BOARD
- TARGET DETECTED AND TRACKED
- VEHICLE STABILITY DEMONSTRATED
- FULL DURATION FLIGHT PROFILE

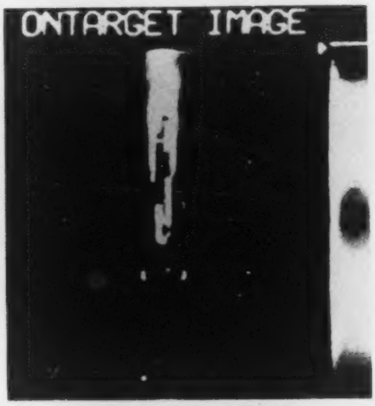
Here is one example. It is on-target free flight. This shows a generic space-based interceptor flying around a hangar out at Edwards Air Force Base in California. This device has on board all the necessary functions for an intercept to be made in space, with the exception of the axial propulsion system.

Utilizing this device we open the hangar doors out there, mount our rocket nose down a couple of kilometers out in front of the hangar, and we have determined that this device, this interceptor, can lock on to the target, can transition from the rocket hard body to the rocket plume, back and forth, obey all the commands, and achieve everything necessary in the way of stability and control. In fact, this series of tests was so successful that last fall we canceled the last two tests.

IR TRACKING OF BOOSTER TARGET



HgCdTe IR FOCAL PLANE CHIP



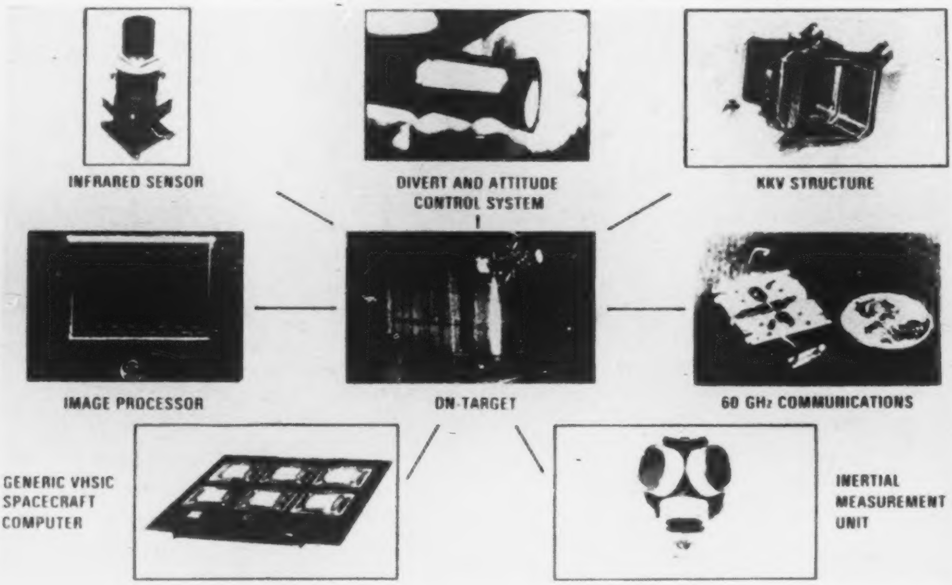
GAPP-BASED IMAGE PROCESSOR OUTPUT SHOWING AIMPOINT LOCATED IN ROCKET PLUME

- **64 × 64 ARRAY (4096 PROCESSORS)**
- **2,600 MIPS**

Here is one of the reasons why we are able to do these kinds of things today. You see this mercury/cadmium teluride infrared focal plane chip for this tremendous processing capability, 4,096 processors on board that very, very small chip. You can see what the sensor sees there and how it is locked on to that rocket plume.

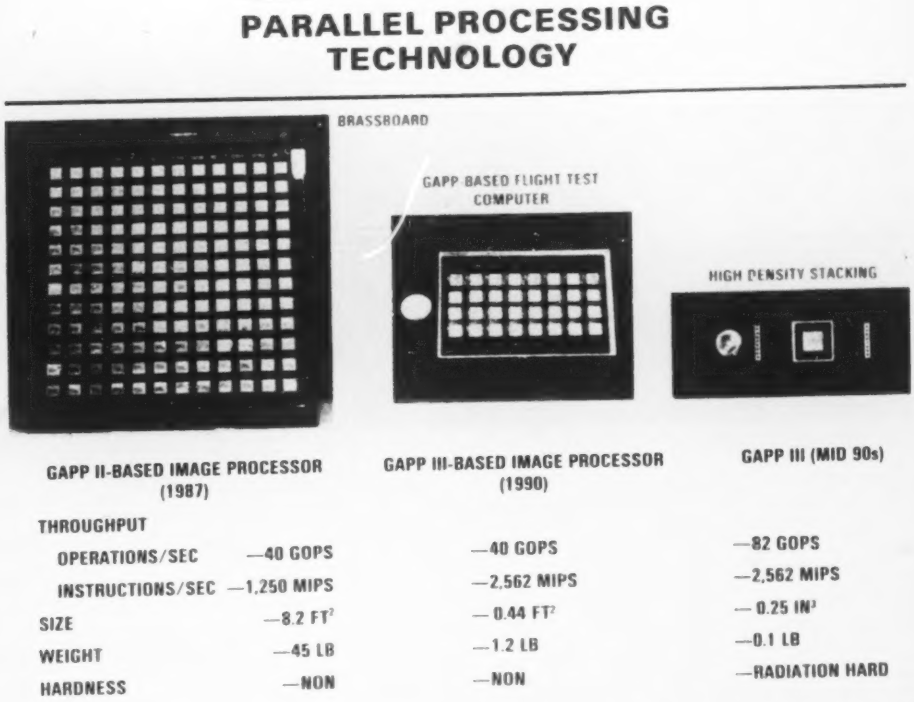
Next chart.

TECHNOLOGY INTEGRATION


INFRARED SENSOR
DIVERT AND ATTITUDE CONTROL SYSTEM
KKV STRUCTURE
IMAGE PROCESSOR
ON-TARGET
60 GHz COMMUNICATIONS
GENERIC VHSIC SPACECRAFT COMPUTER
INERTIAL MEASUREMENT UNIT

I am going to discuss a number of items that are arrayed around the edge here because I think it shows the progress that has been made and why it is that we think the program is technically achievable.

Next chart.



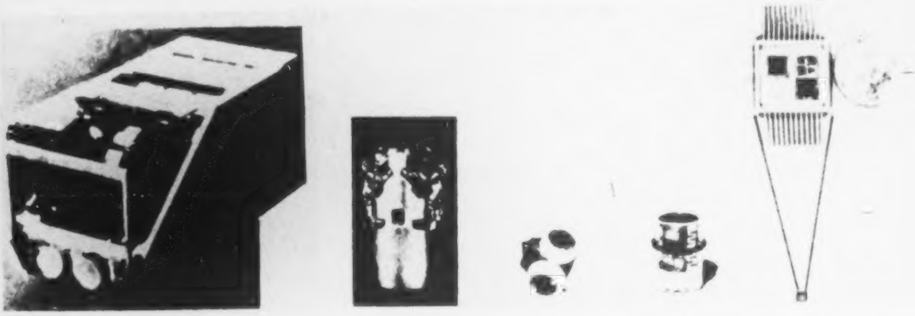
PARALLEL PROCESSING TECHNOLOGY

BRASSBOARD
GAPP BASED FLIGHT TEST COMPUTER
HIGH DENSITY STACKING

	GAPP II-BASED IMAGE PROCESSOR (1987)	GAPP III-BASED IMAGE PROCESSOR (1990)	GAPP III (MID 90s)
THROUGHPUT			
OPERATIONS/SEC	—40 GOPS	—40 GOPS	—82 GOPS
INSTRUCTIONS/SEC	—1,250 MIPS	—2,562 MIPS	—2,562 MIPS
SIZE	—8.2 FT^2	— 0.44 FT^2	— 0.25 IN^3
WEIGHT	—45 LB	—1.2 LB	—0.1 LB
HARDNESS	—NON	—NON	—RADIATION HARD

This is an incredibly powerful processor, the geometrically arrayed parallel processor. You note over on the left-hand side, the processor that we used in the tests that I just described to you, those Hover tests, and in the middle is the processor that we will be using this year. They operate at 40 billion operations per second, a Cray-3 for example, operates at 1 billion operations per second, and a Cray at that speed can add all the social security numbers in the United States in about a quarter of a second. So this is 40 times more powerful than that. Looking out in the mid-1990's we are going to stack up the geometric array there into a small cube and get the size down even further. You can see the computing power even goes up quite a bit higher. Of course, this does not have the memory of a Cray, but the operating capability is much better.

INERTIAL MEASUREMENT TECHNOLOGY



	1970s	1980s	EARLY 1990s	EARLY 1990s	MID 1990s
	GIMBALLED IMUs	STRAPDOWN IMUs	SOLID STATE IMUs	QUARTZ IMUs	MICRO-MECHANICAL IMUs
	MECHANICAL GYROS	RING LASER GYROS	FIBER-OPTIC GYROS	TUNING FORK GYROS	
	40 LB	< 10 LB	~ 1 LB	< 4 OZ	< ½ OZ
	≈ $70,000	~ $100,000	$5,000	$5,000	$500
	NAVIGATION GRADE	NAVIGATION GRADE	NAVIGATION GRADE	TACTICAL GRADE	TACTICAL GRADE
ACCURACY	.005 DEGS/HR	.015 DEGS/HR	03 DEGS/HR	1 DEG/HR	10 DEGS/HR

In the navigation arena, when the Jasons looked at our program last summer, they gave us high marks for this and said you are making some major strides in navigation. Over on the left-hand side of the chart is a very modern inertial navigation unit and that is what is on board; for example, the F-16. It weighs about 40 pounds and costs about $70,000.

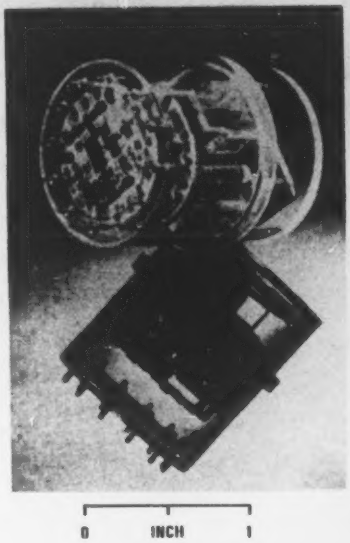
In the middle is the stabilization unit or navigation unit used on the Hover test that I just explained a minute ago. Note that it is 1 pound and $5,000. It is a fiber optics gyro and it has no moving parts, so has terrific reliability to go with it.

Then next to it is a quartz IMU tuning fork approach, we think about 4 ounces, $10,000 to $5,000. By the way, I have one with me here so you can just see the actual size of that particular navigation device.

We are looking at something out in the mid-1990's that literally will have the ability to measure atomic layers and, therefore, perform acceleration calculations. We think that those will be even smaller still.

MINIATURE INERTIAL MEASUREMENT UNIT (IMU)

- "MICRO IMU" DEVELOPED BY SDI FOR USE IN INTERCEPTORS:
  - — UNDER EVALUATION FOR USE IN:
    - U.S. ARMY HELLFIRE MISSILE
    - U.S. ARMY NON-LINE-OF-SIGHT (NLOS) MISSILE
    - MULTINATIONAL MLRS TERMINALLY GUIDED WEAPON (TGW)
    - U.S. ARMY STABILIZED IR SEEKER (SURVIVES GUN LAUNCHED 10,000 G's)
    - U.S. ARMY TERMINALLY GUIDED SUBMUNITION
    - U.S. NAVY SHIPBOARD SATCOM STABILIZATION

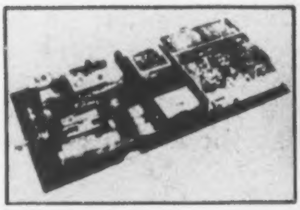


The U.S. Army in a way of a spinoff is looking at this particular device right here for application as you can see in a wide variety of other military hardware.

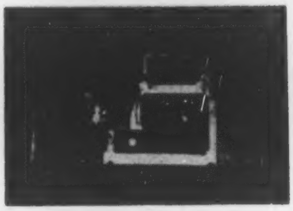
COMMUNICATIONS COMPONENT DEVELOPMENT

PROGRESS IN COMMUNICATIONS TECHNOLOGY
(60 GHZ COMMUNICATIONS RECEIVER)

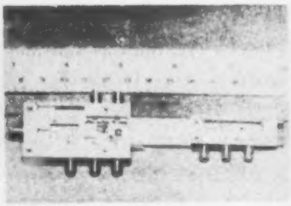
1979



1985



1989

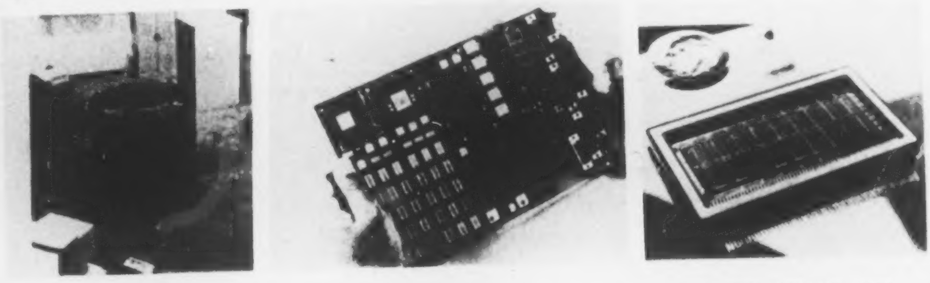


	1979	1985	1989
PRODUCTION	~ 180 MAN DAYS	~ 30 MAN DAYS	~ 2 MAN DAYS
WEIGHT	≧ 60 LBS	≧ 3 LBS	≧ 1.3 OZ
POWER CONSUMPTION	40 WATTS	20 WATTS	5 WATTS

In the communications arena, we are making progress, particularly in 60 gigahertz. Sixty gigahertz is an excellent communications frequency for space because it propagates well in space but does not penetrate the atmosphere and, therefore, it cannot really be easily jammed. You can see that 10 years ago the size, weighed about 60 pounds, consumed about 40 watts, and where we have it today, down to much smaller than that, with much less power consumption. And another important feature is that it takes much less production time, therefore much lower costs.

Next chart.

COMPUTER ADVANCES



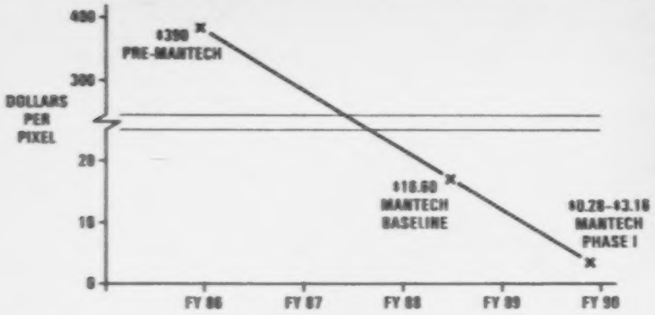
	CRAY 1	BP FLIGHT TEST COMPUTER—1989	BP FLIGHT COMPUTER—1991 (1 OF 4 MODULES)
PROCESSORS	1	1	2
MEMORY (MEGABYTE)	128	2	4
MILLION INSTRUCTIONS PER SECOND (MIPS)	36	12 SUSTAINED 20 PEAK	24 SUSTAINED 40 PEAK
SIZE (FT^3)	188	0.06	0.015
WEIGHT (LB)	10,000	3.0	0.5
POWER (WATTS)	100,000	28	66

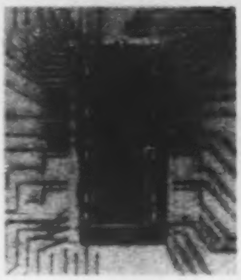
The Brilliant Pebbles will have on board also a very, very powerful computer. I show it by comparison with the Cray. It has about the computing capacity of the Cray computer, but, of course, it does not have the memory; it does not need that.

So the one in the middle is the one that we will be using for the initial flight tests that will start this summer. Then next year, for flight testing we will be using the one that is about the size of a deck of playing cards, a little bit smaller, which you see over on the right-hand side.

FOCAL PLANE PRODUCIBILITY

MANTECH PROGRAM TO PRODUCE MERCURY CADMIUM TELLURIDE (MCT) MWIR FOCAL PLANE DETECTORS FOR BOOST PHASE SURVEILLANCE





	PRE-MANTECH	TODAY
YIELD	< 0.1%	11–35%
SENSITIVITY	1	3X
SIZE OF DETECTORS	(2 x 64)	(32 x 64 128 x 128)
UNIFORMITY (VARIABILITY)	30%	4%
PRODUCTION CAPACITY/YEAR	< 1,000	2,000,000

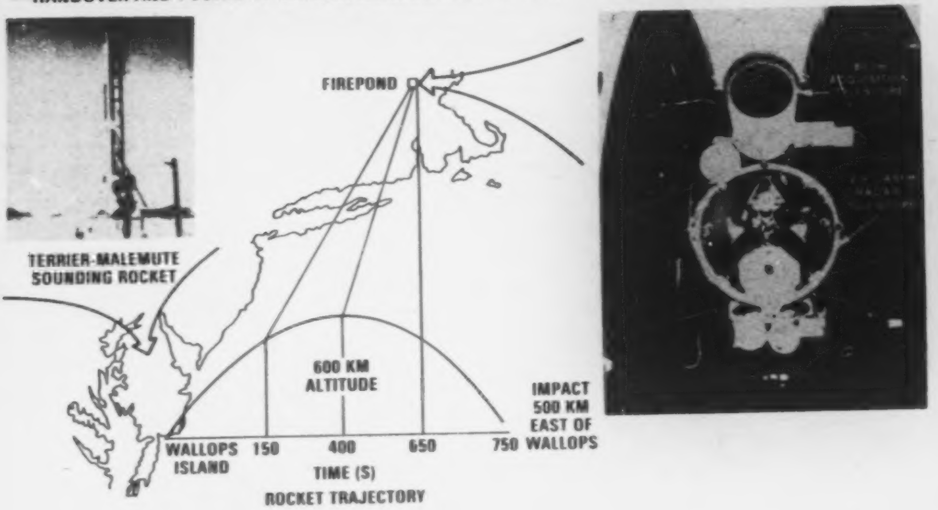
In getting costs down in this program, one of the things that we really spend an awful lot of time on is working on cost reduction. One important area is in manufacturing techniques of focal plane arrays. By focal plane arrays I mean arrays that have perhaps several million individual infrared detectors on board the focal plane.

You can see what the manufacturing technology effort has done over the period of just about the last 4 or 5 years, and we have achieved results there that we did not think were really possible.

Next chart.

LASER RADAR

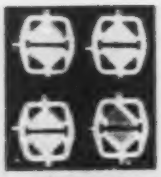
- CO$_2$ IMAGING LASER RADAR DEMONSTRATES MIDCOURSE DISCRIMINATION CAPABILITY
  - —AN INFLATABLE DECOY SIMULATING AN RV WAS TRACKED AND IMAGED AT 800 KILOMETERS
  - —HANDOVER AND FUSION OF SENSOR DATA DEMONSTRATED


FIREPOND
TERRIER-MALEMUTE SOUNDING ROCKET
600 KM ALTITUDE
IMPACT 500 KM EAST OF WALLOPS
WALLOPS ISLAND
150
400
650
750
TIME (S)
ROCKET TRAJECTORY

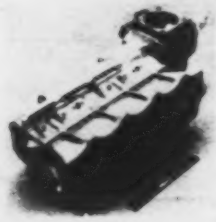
In an experiment that we conducted here just about 3 weeks ago, from Massachusetts and from Wallops Island, we determined that a laser radar was very capable of imaging objects in space. From this we learned that we have another tool to use in the discrimination problem, discriminating reentry vehicles from decoys.

Next chart.

HEDI LATERAL THRUSTERS

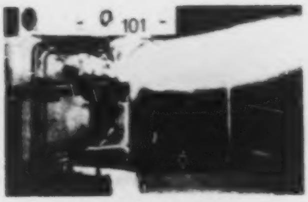


PLATELETS



HEDI

• THRUST	10,500 LB
• LENGTH	9.5 IN
• WEIGHT	11.3 LB
• THRUST TO WEIGHT	930 TO 1



FULL SCALE TEST

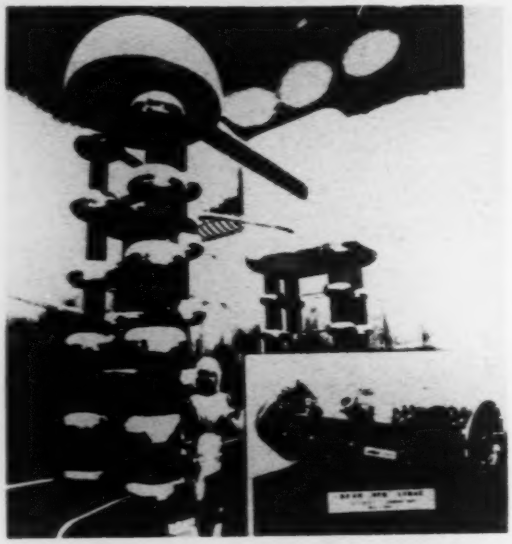
DELTA ENGINE 2ND STAGE

• THRUST	9,763 LB
• LENGTH	108 IN
• WEIGHT	216 LB
• THRUST TO WEIGHT	45 TO 1

In the HEDI test that was just recently conducted, one of the reasons that it was possible was because on the left-hand side you will note a thruster that has about 10,000 pounds of thrust but a thrust-to-weight ratio of 930:1. I contrast that with what the Delta rocket uses today, a thruster of about 10,000 pounds, but you can see it weighs 216 pounds versus 11 pounds for what we had in HEDI, and a tremendous difference in those thrust-to-weight ratios.

COMPACT ACCELERATORS

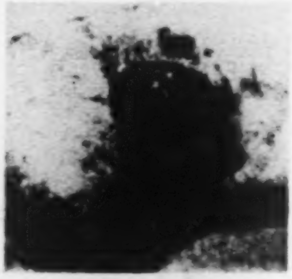
- RADIO FREQUENCY QUADRUPOLE LINEAR ACCELERATOR (RFQ LINAC) CURRENT APPLICATIONS:
  - RADIO PHARMACEUTICAL PRODUCTION FOR POSITRON EMISSION TOMOGRAPHY (PET)
    - —RFQ ALLOWS WIDER USE OF THIS POWERFUL TECHNIQUE
  - CANCER THERAPY AND TREATMENT
    - —LOMA LINDA UNIVERSITY MEDICAL CENTER PROTON THERAPY UNIT
  - EXPLOSIVE DETECTION
    - —UNDER EVALUATION BY FAA



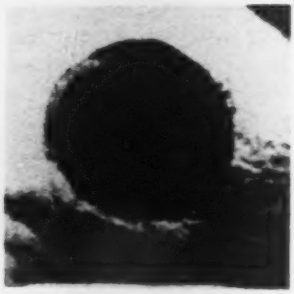
This is a radio frequency quadrupole linear accelerator. In the inset there is what we flew on the neutral particle beam BEAR experiment last summer. Contrast that though with the kind of hardware that it replaced which was about the size of the a three-story building.

By the way, with these small linear accelerators now, it is practical for them to be used in medicine. There is cancer treatment and therapy being investigated at Loma Linda, as you see, but there are other places also where this could used. The FAA is now evaluating this sort of technology for use in explosive detection.

LASER TECHNOLOGY APPLICATION



EXCISION BY SCALPEL



EXCISION BY LASER

PULSED CO_2 LASER WITH NEW IMAGING PROCEDURES APPLIED TO THE TREATMENT OF BURNS

- REPLACES SURGICAL METHODS REQUIRING MULTIPLE OPERATIONS
- LARGE AREAS OF DEAD SKIN ABLATED RAPIDLY WITH GREAT PRECISION AND ACCURACY
- REDUCED SCARRING
- PROVIDES EXCELLENT BASE FOR SKIN GRAFTS

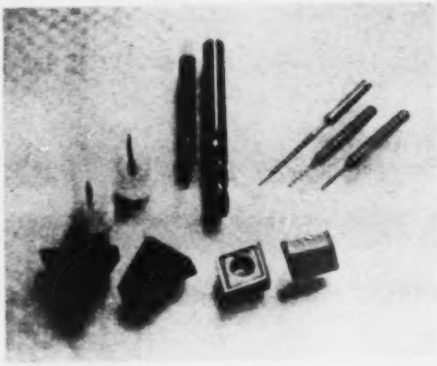
Another spinoff is in the application of highly pulsed lasers in medicine, and this is just one. This is one used in the treatment of burns. The doctors tell me that one of the serious problems in the treatment of burn patients is the tremendous amount of surgery required and the bleeding that occurs in muscle tissues that has to be scraped away in the surgery.

With the laser, surgery would not be necessary and up at Massachusetts General Hospital they are working on perfecting this technique at the present time. So you get away from the surgery and provide an excellent basis for skin graft.

Now these sorts of lasers, the highly pulsed lasers, also have application for treatment of coronary artery disease, treatment of glaucoma, treatment of kidney stones, and some other applications.

DIAMOND MATERIALS

- **SDIO: FIRST SPONSOR OF U.S. DIAMOND FILM RESEARCH AND DEVELOPMENT**
  - **SDIO SUPPORT RECOGNIZED IN BUSINESS WEEK MAGAZINE**
- **DIAMOND'S UNIQUE PROPERTIES HAVE MANY POTENTIAL APPLICATIONS TO A WIDE VARIETY OF PRODUCTS**
  - **POTENTIAL FOR $16 BILLION MARKET BY THE LATE 1990s**
  - **NUMEROUS APPLICATIONS TOOLING, ELECTRONICS, MATERIALS, etc.**

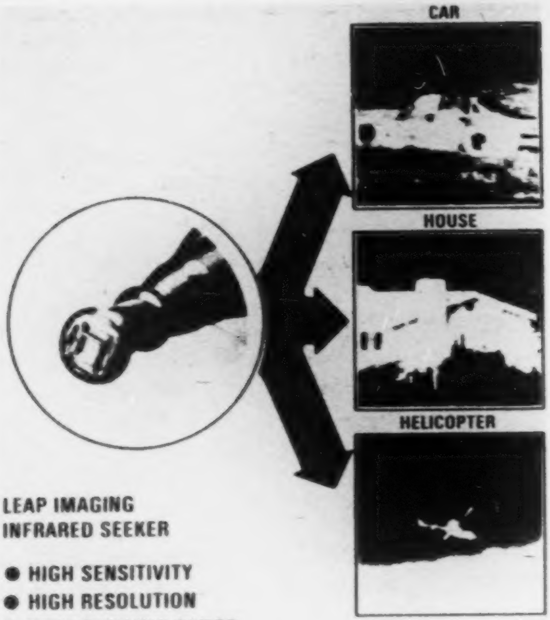


Diamonds—well, diamonds in industry have been around for a long, long time, but not the sort of diamonds we are talking about here. This is a diamond that is formed by chemical vapor deposition. We use a raw material methane gas, add electricity and some heat, and we are able to deposit these very thin but hard diamond films on various objects.

Why is that important? Well, a diamond is an excellent thermal conductor. It is an excellent electrical insulator and it is very strong. It has excellent optical properties. For example, what I have here is a small diamond window that was formed by this chemical vapor deposition technique. It is one micron thick, about one-sixteenth or so the thickness of a human hair, but it can withstand one atmosphere of pressure, which is a tremendous amount of force, and also do that with good optical properties.

A good application of this is in what we call x-ray lithography, which is a key in making ever smaller electronic devices.

LEAP SEEKER TECHNOLOGY



LEAP IMAGING INFRARED SEEKER

- HIGH SENSITIVITY
- HIGH RESOLUTION
- WIDE DYNAMIC RANGE

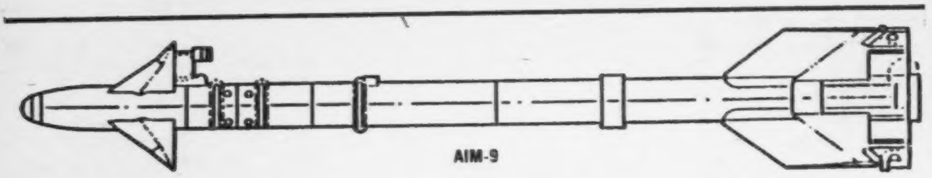
POTENTIAL APPLICATIONS

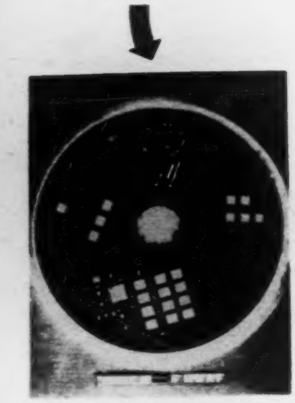
- NIGHT VISION
  - LAW/DRUG ENFORCEMENT
- SENSOR IMAGING
  - AUTONOMOUS VEHICLE GUIDANCE
  - COLLISION AVOIDANCE
- FOREST MANAGEMENT
  - FIRE DETECTION

Here is an imaging seeker which was developed under the LEAP program, and that very, very small, very powerful seeker as you can see has the ability not to just detect something, but to make an image of it as shown there.

There is a car, a house, a helicopter. Besides application in our program there are many others, and one of them is demonstrated on the next page.

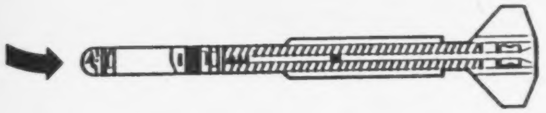
AVIONICS TECHNOLOGY SPINOFFS





POTENTIAL FOR AIR-TO-AIR MISSILE

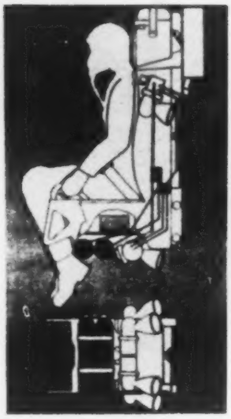
- 43% TOTAL WEIGHT REDUCTION
- 10 INCHES OF AVIONICS REDUCED TO 1 INCH
- 16 LBS OF AVIONICS REDUCED TO 1 LB
- REDUCTION IN PROPULSION REQUIRED
- REDUCED DIAMETER, HIT-TO-KILL, SMALLER TAIL CONTROL SURFACES

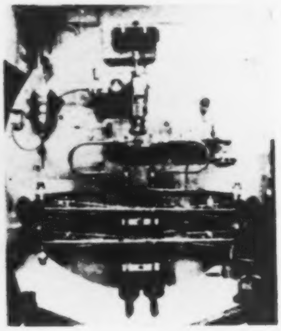


LEAP AVIONICS
(HYBRID WAFER SCALE INTEGRATION)

And we think the AIM-9 missile that is currently the standard, or the most modern air-to-air heat-seeking missile that we have in our inventory, can be replaced by something about one-half the size that we have today.

GEL TECHNOLOGY SPINOFFS— CONTROLLED EJECTION





BRASSBOARD

- POTENTIAL FOR SMART EJECTION SEATS WITH APPLICATION OF PROCESSORS, GYROS AND GEL PROPELLANTS
  - — HIGH SPEED EJECTION MORE SURVIVABLE DUE TO CONTROLLED SLOW-DOWN USING THROTTLEABLE THRUSTERS
  - — AVOIDS TUMBLING
  - — CAPABILITY FOR LOW ALTITUDE/ ADVERSE POSITION EJECTION WITH CONTROLLABLE THRUST LEVELS AND DIRECTION
- FIRST COMPLETE SYSTEM TEST OF GELS (APRIL 1989)
  - — 2 MILLISECOND VALVE RESPONSE TIME
  - — FULL THRUST ACHIEVED IN 8 MILLISECONDS
  - — 247 THROTTLE PULSES IN 1.5 SECONDS

Something I think fighter pilots would like is that with our fuel technology, plus the computer technology, plus the miniature accelerometers we now can devise an ejection seat where pilots can bail out at much, much higher air speeds and survive than they have been able to do in the past. And it also has many other good survivability features.

ADVANCED TACTICAL FIGHTER

- 301 SDIO TECHNOLOGIES IDENTIFIED BY ATF PROGRAM OFFICE
  - AREAS CURRENTLY BEING EVALUATED BY ATF CONTRACTOR TEAMS
    - —ADA PROGRAMMING
    - —ANTENNA/APERTURE
    - —E/O SYSTEMS
    - —FAULT TOLERANT DATA SYSTEMS
    - —GaAs TECHNOLOGY
    - —IR COATINGS
    - —PASSIVE DETECTION
    - —SENSOR FUSION

Another example of where the Department has taken advantage of work done under SDI is with the advanced tactical fighter. We have been working with the ATF program office, and they are looking at about 301 of our technology programs.

SUMMARY

- **Technology At Hand To Develop And Deploy Strategic Defenses**
  - **Supported By Many Independent Evaluations By The Scientific Community**
  - **Engineering Task Is Challenging - Team In Place**
- **Planned Phase I Architecture Defined**
  - **Meets JCS Requirements**
  - **Cost Reduced From $69B To $55B (FY 88 $)**
- **Research On Interceptors, Lasers And Particle Beams Provides Viable Future Options For Requirements And Architectures Beyond Phase I**

Well, that is just a very quick run down. Let me summarize with just a couple of words, finally, Mr. Chairman. The American Institute of Aeronautics and Astronautics, the Defense Science Board, the Jasons, other groups, my scientists and engineers I think all conclude today that the technology is at hand to proceed with the program.

We can do it from a technical point of view. Obviously, there are some tremendous engineering challenges associated with it. For example, there are 20 million to 30 million lines of software code that have to be written, but nevertheless it is something that can be done from a technical point of view.

We know the kind of architecture that is necessary to meet the requirements that have been put out by the Joint Chiefs of Staff. We are working on cost-reduction opportunities. We have been able to get the costs down some this year, but we are looking at other architecture changes that will refine that some and get the costs down even lower than that.

We have research underway on the lasers and the particle beams that would be possible out in the next century.

So technology is in hand and we know what the architectures generally should look like. We can provide the President and you with a wide variety of options, just within the next couple of years, as to how we might be able to proceed with the program.

So the major issues really are political and economic and strategic, and those are very, very important issues, but I think from a technical point of view that it is doable.

With that, Mr. Chairman, thank you for listening to the presentation, and I would be very happy to address your questions.

[The statement follows:]

STATEMENT OF LT. GEN. GEORGE L. MONAHAN, JR.

INTRODUCTION

Mr. Chairman and Members of the Committee, I am pleased to appear before you today to speak in support of the Strategic Defense Initiative (SDI) budget request and to answer any questions you may have about the program.

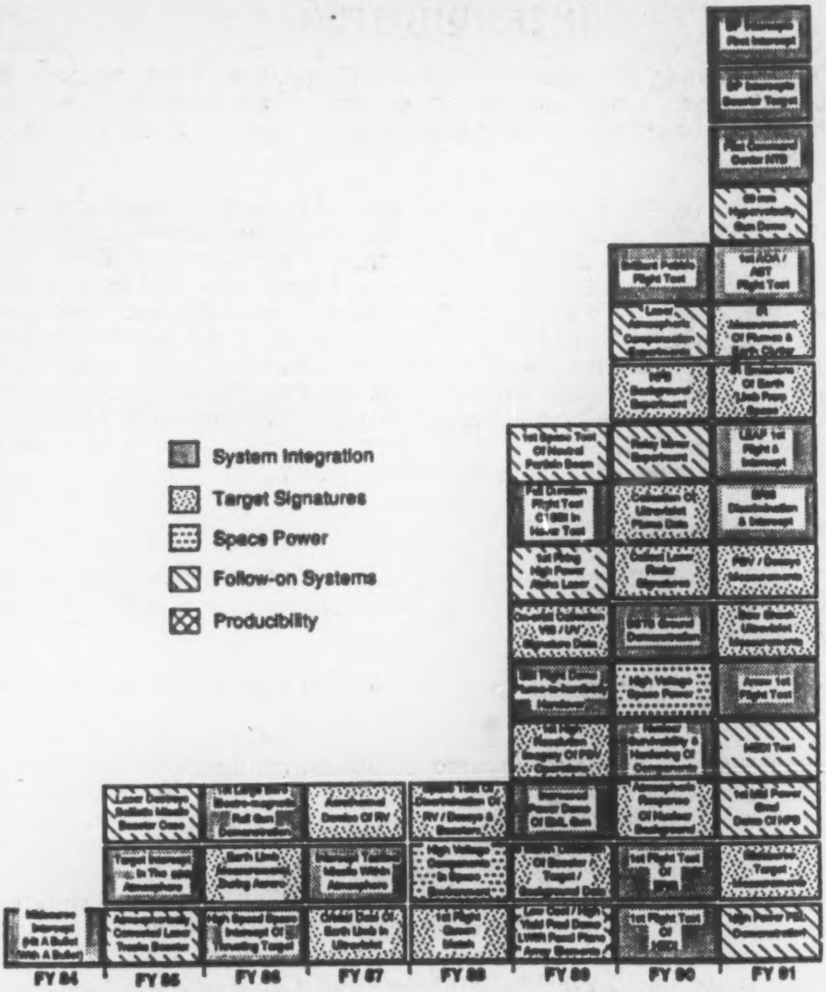
The SDI program is in its sixth full year of research to determine the feasibility of effective defenses against ballistic missiles, and we continue to make excellent progress across a broad range of technologies. During FY 1989 we conducted a record number of major experiments and tests crucial to program success. We will break that record in FY 1990 and, with your support, surpass it in FY 1991 (Figure 1). The growing number of tests and experiments demonstrates that the program is moving away from paper feasibility studies, laboratory work and infrastructure development which characterized prior years. We are now moving into the testing of hardware, thus capitalizing on SDI investments. I shall discuss some of the more important program developments later in my statement.

FY 1991 PROGRAM BASIS

The FY 1991 SDI budget request submitted to the Congress by the President on 29 January 1990 is structured around the following Presidential guidance:

- Provide for an informed decision on deployment within three years.
- Pursue options for layered defenses, consisting of both space and ground-based elements, which offer the promise of meeting the requirements issued by the Joint Chiefs of Staff (JCS) for Phase I defenses.
- Expedite research and development of promising defense concepts (such as Brilliant Pebbles) that could intercept missiles during the boost portions of their flight. Pursue other Phase I space-based system components as a back up.
- Conduct the program in full compliance with all U.S. international obligations, including the Anti Ballistic Missile (ABM) Treaty.
- Structure the program to permit deployment of layered defenses on a schedule as close as possible to that envisioned in the FY 1990-1994 Five Year Defense Plan submitted to the Congress on January 9, 1989.

FIGURE 1
MAJOR TECHNICAL ACCOMPLISHMENTS



I would like to take a few minutes to discuss each of these five points in some detail.

PROVIDE FOR AN INFORMED DECISION ON DEPLOYMENT

To support this decision, the FY 1991 SDI program is structured to continue research and development on a broad range of maturing and advanced technologies. Research to demonstrate and validate elements of the Phase I system is balanced with tests and experiments for follow-on concepts such as directed energy technologies. The program is focused on reducing technical risk in areas such as target signatures against a variety of backgrounds, communications, radiation hardening, space power, and system integration. The program is also focused on reducing costs in areas such as optics, focal plane arrays, light weight materials, and launch. The overall approach is intended to provide the decision makers with information on initial defenses and options for future capabilities to enhance initial defenses should this prove necessary.

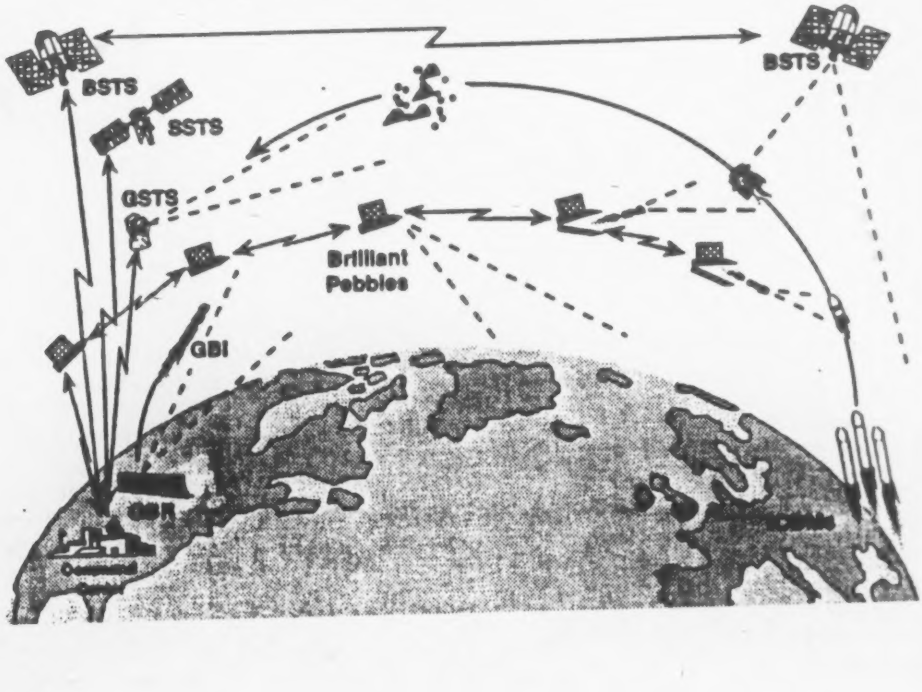
LAYERED DEFENSES TO MEET JCS REQUIREMENTS

The Phase I system has been designed to serve as the first in a potential series of deployments leading to a more balanced deterrent posture based on offensive and defensive forces. With this understanding, the JCS issued in 1987 a formal statement of mission objectives and required system characteristics for Phase I. These requirements provide guidance for establishing the architecture explained in prior budget requests and depicted in Figure 2.

The architecture selected is consistent with the findings and recommendations of the 1984 Fletcher Study on SDI, and subsequent studies have confirmed that it is a sound approach. It is a two-layer system consisting of both ground and spaced-based interceptors and sensors and their supporting systems.

I would also like to review for the Committee the rationale for pursuing layered defenses. As you know, layered defenses are those which engage attacking missiles in more than one portion of their trajectories. The significant benefit to layered defenses is that they are highly effective against a variety of attacks and are less vulnerable to possible countermeasures. The FY 1991 SDI program is consistent with this rationale. First, our research is aimed at space-based kinetic and directed energy weapons and sensors for the high payoff, boost/post boost region where a single hit by a defensive weapon could destroy multiple attacking warheads and their decoys. Second, we are examining ground and space-

Figure 2
SDS PHASE ONE ARCHITECTURE

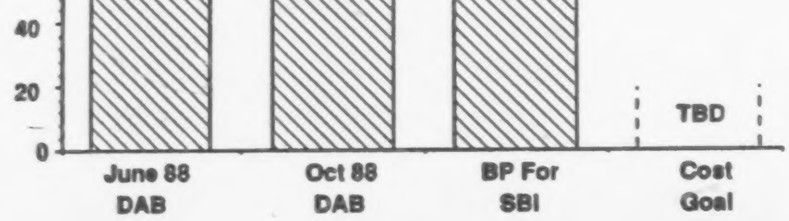


based kinetic and directed energy weapons and sensors to detect and destroy warheads during their relatively long flights in the midcourse region. Additionally, we will explore ways to destroy warheads as they reenter the atmosphere in the terminal region.

EXPEDITE RESEARCH OF PROMISING CONCEPTS (BRILLIANT PEBBLES)

The Brilliant Pebbles concept consists of a light-weight, low-cost, single hit-to-kill kinetic kill vehicle that provides integrated sensors, guidance, control, and battle management. During FY 1989, this autonomous, highly survivable, space-based defensive interceptor concept was independently reviewed by a Department of Defense Space-Based Architecture Study Group, by the distinguished JASONS panel of scientists, and by the Defense Science Board. The concept was found to be innovative and capable, with no fundamental flaws, and deserving of continued support. Initial cost estimates show that Brilliant Pebbles could reduce the cost of a Phase I system by at least 20% (Figure 3). I believe that these estimates are conservative, especially in light of the opportunities for innovation in manufacturing technology for producing large numbers of identical Pebbles. I also believe that the strategy we have selected for developing this concept will take advantage of these opportunities.

Figure 3
SDS PHASE I COST COMPARISONS
(FY 88 $ IN BILLIONS)



We launched in FY 1990 a multiple-contractor competition for concept definition. My office, with the cooperation of the Lawrence Livermore National Laboratory, will manage this highly streamlined program. The program is designed to bring industry on board and at the same time maintain the simplicity and low-cost features of the concept. A follow-on design competition will be initiated in FY 1991. To obtain maximum benefit from contractor innovation, we are not imposing military specifications or standards. Requests for proposals and contracts will state requirements in a simple fashion, and contractor reporting requirements will be minimized.

Additionally, given Brilliant Pebbles potential for independent operation, the role of the Boost Surveillance and Tracking System and the

Space Surveillance and Tracking System in the Phase I architecture is being reassessed. Although these sensors are definitely needed for non-SDI missions, the Phase I architecture with Brilliant Pebbles may not require these sensors or may require less capability from them. This outcome could further reduce the cost of a Phase I system.

In line with Presidential guidance and Defense Science Board recommendations, we will continue research and development on more conventional space-based interceptor concepts.

TREATY COMPLIANCE

The Department of Defense has in place an effective compliance process under which the Undersecretary of Defense for Acquisition, in consultation with the Department's General Counsel, Undersecretary of Defense for Policy, and Chairman JCS, ensures that all defense programs are in compliance with all U.S. strategic arms control obligations. SDI experiments, tests, and other research and development efforts proposed for FY 1991 will, prior to execution, be carefully screened by the Department's Compliance Review Group to certify that planned activities fully comply with the ABM Treaty. This compliance process has been followed in all previous years of the SDI program. Additionally, I, as the Director of the SDI program, am required to certify continued compliance quarterly and have established internal procedures to do so.

ATTEMPT TO MAINTAIN JANUARY 1989 PLANNED SCHEDULE

Planned funding for the SDI program for FY 1990 through FY 1994 was reduced substantially after January 1989. The President understood that this could adversely impact our ability to maintain the pace of the program. Yet, he asked that we try. I am pleased to report to this Committee that we have, to a large extent, been successful. We did this by making things simpler and cheaper. Incorporation of advances in technology, the inclusion of Brilliant Pebbles in the space-based segment of the Phase I architecture, and judicious use of available resources has, so far, allowed us to maintain the program balance and pace needed to support a decision on deployment and to maintain an option for initial deployment in this decade. Our ability to continue on this path clearly depends on the level of funding for FY 1991 and beyond.

SDI PROGRAM PROGRESS

When SDI was initiated, this nation's experience with ABM systems was limited primarily to 9 months of operation in the 1970s of the Safeguard ABM system at Grand Forks, North Dakota. The Safeguard system employed nuclear-tipped missiles and large ground-based radars. Because of technology limitations in areas such as computer guidance, sensors, optics, and miniaturization, we could then not achieve the accuracy needed to realize direct hit-to-kill, which eliminates the need for a warhead of any kind. We also knew there were important issues with system survivability and battle management. When Safeguard was abandoned, few predicted the large and rapid advances in technology that have permitted ballistic missile defenses to re-enter our national security equation.

Times Have Changed

- In 1984 we hit a "bullet with a non-nuclear bullet" using a ground-based interceptor and on-board passive infrared sensor for terminal guidance to destroy a simulated reentry vehicle launched from a ballistic missile.
- In 1986 we validated guidance laws in space by destroying a thrusting target. This simulated an intercept in the boost portion of a ballistic missile's trajectory.
- In 1987 the Flexible Lightweight Agile Guided Experiment demonstrated that a reentry vehicle could be intercepted in the atmosphere using a radar-guided interceptor.
- In January of 1990 the first High Endoatmospheric Defense Interceptor flight test demonstrated our ability to effectively cool a terminal interceptor's forebody and sensor window. This is a crucial step toward demonstrating that the sensors will not be disabled by heat from atmospheric friction. Until this flight test, many in the technical community believed that effective window cooling could not be achieved.

To intercept a missile or reentry vehicle, defenses first must detect, discriminate, acquire, and track the targets under a variety of conditions. Early in SDI we established, and we continue to operate, a broad-based program to collect target signatures. This program includes numerous sounding rockets and rocket-launched satellites to put up sensors to view targets and decoys against different earth and space backgrounds. It also includes various airborne, shipborne, and ground-based sensors to collect signature data. (Examples of airborne platforms are an NC-135A equipped with sensors that operate in the visible through long wavelength infrared bands and a Lear jet equipped with ultraviolet through medium wavelength infrared sensors.) Further, we have an aggressive program to explore and develop passive, active, and interactive discrimination technology. This program is supported by activities which build and test various decoys and penetration aids to see what will "stress" the system. Some specifics will illustrate our accomplishments in these areas.

- Throughout the 1980s our Delta 180 series detected, acquired, and tracked numerous targets including boosters, reentry vehicles, and decoys.
- In 1988 we collected our first infrared data on foreign targets in the QUEEN MATCH flight, and conducted many sounding rocket tests to evaluate decoys, countermeasures, and the effectiveness of discrimination.
- In 1989, in the JANUS experiment, we used high resolution infrared imagery to collect target signatures of post-boost vehicles.
- Also in 1989, with our space-based interceptor hover test, we integrated a host of technologies and demonstrated the full capability to acquire and track a rocket plume, then transition to tracking the rocket hard body. This capability is absolutely essential for boost and post-boost intercepts.

- In 1990 we will demonstrate that we can detect boosting targets of all intensities of interest against a variety of earth backgrounds.

Much progress has also been made in ensuring that defenses can be integrated and managed, always with man-in-the-loop, and that they are survivable.

- The National Test Bed has been established to develop, test and validate strategic defense concepts and software.
- We are building high-fidelity end-to-end simulations that allow defense concepts to be tested against a variety of realistic threat models. This effort provides early user involvement in the development of command and control concepts.
- An early version of a command center was successfully demonstrated at the Army Research Center. This program showed that, with man-in-the-loop, there is sufficient time to assess, react and engage attacking missiles throughout the battlespace.
- We have established a software center of excellence to address the large scale integration of software for a defensive system.
- To ensure that systems can operate reliably in the adverse environments caused by nuclear weapon detonation, we validate the survivability of system components, such as electronics, optics and structures, through experiments on underground nuclear tests.
- Red/Blue team analyses are conducted to examine the ways in which an attacker may try to defeat the defenses, and to establish effective measures to offset those attempts. Results are then fed back into efforts to design both the system and its operational concepts.

Most of the progress discussed so far relates to Phase I. However, progress in advanced technologies, such as directed energy, has also been impressive. The key issues being examined are target acquisition, pointing and tracking, generation of high power lasers and particle beams, and beam lethality.

- In 1985 we demonstrated at low power the capability to both track a rocket in space and to propagate a laser beam through the atmosphere without significant distortion. In several other experiments, we proved lasers are lethal weapons for destroying both solid and liquid propellant missiles.
- In 1986 our first particle beam experiment irradiated a miniature reentry vehicle with a high intensity proton beam. The results indicated that the explosives contained in a reentry vehicle are detonated by such beams.
- Early in the program many experts had stated that building large optics would be impossible and prohibitively expensive. In 1988 we built a high quality mirror, the first large diameter

segmented mirror with a surface that is controlled electronically. That mirror will be integrated into a ground test in 1991.

- In 1989 the Alpha Chemical laser for the first time produced a high-power beam when fired in its ground test facility. This milestone in the space-based, chemical laser program is being used to validate the technology, computational methods, and fabrication processes necessary for scaling chemical lasers, configured for space basing, to power levels required for a strategic defense.

- In 1989 our Beam Experiment Aboard Rocket conducted the first test in space of a neutral particle beam. It employed a relatively light-weight power supply which can be packaged for space operation. It demonstrated that complex directed energy weapons could be reliably operated in space.

- In February of 1990 we launched the first long-term directed energy space experiments from Cape Canaveral. The 2-1/2 year Low-Power Atmospheric Compensation Experiment, known as LACE, will measure the atmospheric distorting effects on laser beams. The 1 year Relay Mirror Experiment, known as RME, will demonstrate the relay element of a ground-based laser.

- The Talon-Gold ground test demonstrated our ability to place a beam on target very accurately The next challenge is to do it in space, an experiment currently planned for 1992. The precision we are demonstrating in these experiments is equivalent to firing a laser from high above the Empire State building to hit a volleyball on a California beach.

Our research into defense systems has also yielded tremendous technical progress in areas such as miniaturization, reduced manufacturing cost, and light weight structures.

- Efforts in navigation technology have ushered in a whole new class of miniaturized inertial measurement units for navigation and guidance in the 1990s. Bulky units that weighed tens of pounds in the past will weigh only ounces in the future, with costs reduced by a factor of ten.

- We are learning how to manufacture large quantities of infrared detector elements, known as pixels, at greatly reduced costs. Prior to SDI, the costs of such pixels were in the range of hundreds of dollars each. Today we are looking at a range of a few dollars to a fraction of a dollar.

- Our work on making stiff, high-performance trusses and tubes from advanced composite materials provides one example of developing lightweight, high strength structures for space platforms.

These and other advances have been exploited to reduce the costs and enhance the performance of prospective strategic defense systems.

Additionally, our research has yielded a wealth of spin-off applications of SDI technology.

- An outgrowth of our free electron laser program is medical use of lasers to remove burn and scar tissue, break up kidney stones, and treat heart disease and cancer.
- Some of our laser work also contributed to a blood bank purification process that cleanses donor blood bank supplies of infectious viruses.
- SDI-developed carbon material for use in orthotic braces will double the strength and reduce the weight by two-thirds when compared to conventional steel braces.
- Our work on optical technologies could lead to a new generation of very high speed, low cost supercomputers.
- SDI neutral particle beam technology may have applications in areas such as airport detection of explosives, cancer therapy, and non-destructive inspection of manufactured items such as rocket motor components.
- SDI research is creating commercial opportunities in superconductivity, diamond crystal coatings, communications, industrial manufacturing processes, electronics, and microwave technology.
- SDI hypervelocity gun technology may be utilized for mass transfer of materials from the lunar surface to low earth orbit.
- The National Aeronautics and Space Administration's Space Station and National Aerospace Plane should benefit from SDI advances in computing, signal processing, and light weight structures.
- SDI technology may have other defense uses such as reducing the weight and cost of air-to-air missiles. Hypervelocity gun and directed energy technology could also be used in the theater battlefield.

As you can see, Mr. Chairman, SDI technical progress during the 1980s has been very impressive across a broad range of technologies.

FY 1991 BUDGET AND PROGRAM HIGHLIGHTS

I will turn now to the highlights of our FY 1991 budget and program. The Fiscal Year 1991 budget request for the SDI program is $4.47 billion. Although this is an increase of $870 million over the FY 1990 appropriation, it is a $1.0 billion reduction from the FY 1991 budget included in the FY 1990/1991 budget request last year. Our major technical plans are discussed next.

Development of the Boost Surveillance and Tracking System (BSTS) missile launch warning satellite is on track. The system is scheduled to enter full-scale engineering development in FY 1991, subject to a successful ground demonstration in FY 1990. BSTS is essential to the national mission of tactical warning/attack assessment and other missions. However, its role as a critical node to strategic defense has diminished with the adoption of Brilliant Pebbles. The first launch of a full-scale development vehicle is planned for the mid-1990s.

The BSTS program was created prior to SDI to resolve long standing deficiencies in the Defense Support Program (DSP). As the follow-on to DSP, BSTS is necessary in order to satisfy validated TW / AA requirements. BSTS satisfies concerns in areas of survivability (of satellites and ground assets), decentralization of tactical information (through direct reporting to users), assured worldwide coverage and more warning time (through increased sensitivity and quicker reporting times). Application in BSTS of today's state-of-the-art technology frees the early warning system from overseas bases, requires fewer personnel to operate, provides more detailed information to using commanders, and has a lower life-cycle cost. BSTS will complete its demonstration and validation phase next year. The program, fully ABM Treaty compliant, is ready to enter FSD to fulfill the TW / AA mission. Concurrently, BSTS is structured to protect a decision for possible future use within strategic defenses. Delaying start of FSD continues identified TW / AA shortfalls (through delayed transition from DSP), adds costs (both in the form of increased overall BSTS program costs and additional DSP satellite and continued multiple ground station costs), and jeopardizes our investment (approx $1B to date) and the industry base currently in place to carry development forward. Finally, delay in the start of FSD in 91 will bring us back to this table next year with the same issues but with no additional information; only higher costs.

The High Endoatmospheric Defense Interceptor is the most advanced concept being considered for terminal defense. It is a ground-based, hypervelocity, high acceleration interceptor designed to destroy ballistic missile reentry vehicles high in the atmosphere. It is both a potential follow-on to Phase I and a back up to the Ground-Based Interceptor. The High Endoatmospheric Defense Interceptor also has strong potential for theater defense. During the remainder of FY 1990 and in FY 1991 we will prepare to conduct a second flight test to verify target acquisition and tracking functions, control and guidance systems, and seeker window survivability.

In FY 1991 we will also continue construction of the technical facilities for the Free Electron Laser Accelerator, Wiggler, and Beam Control System at White Sands Missile Range in New Mexico. When completed (in approximately FY 1993), it will be available to house the high power laser required to conduct the technology integration experiments needed to validate the concept.

As I mentioned previously, during FY 1991 we plan to conduct a record number of major tests and experiments (16). These will encompass a broad range of technologies, and they include:

- The first intercept by a Brilliant Pebbles experimental vehicle;
- Major phenomenology experiments to collect vital signature and environmental data in support of the target acquisition, tracking, and discrimination functions;
- A pulsed high power concept demonstration of a free electron laser device;
- A full power test of the neutral particle beam ground test accelerator at Los Alamos; and

- The first flight tests of the Arrow theater defense experimental interceptor. Arrow is a good example of an allied cooperative program.

THEATER DEFENSE AND OUR ALLIES

Mr Chairman, before concluding, there are two other important topics related to the SDI program that I would like to address. These topics are theater defense and the participation of our allies in the SDI program.

The SDI charter reflects a concern for both U.S. and Allied security and stresses development of defensive technologies for ballistic missile threats of all ranges. The FY 1991 program would continue our theater defense program that includes examination of architecture studies, technology demonstrations, tests, and the development of test beds to explore alternatives which could provide a defense against theater-class ballistic missiles. Allied participation has enhanced our understanding of theater defense problems.

In fact, Allied participation in theater defense and other SDI research has proven beneficial to both the SDI program and to our Allies. We have also recently signed several cost-sharing, project-specific cooperative research commitments with the Allies. Allied participation contributes to the attainment of SDI objectives, and we will continue to cooperate with our Allies on many aspects of the SDI research program.

CONCLUSION

In conclusion Mr. Chairman, I believe that the most significant evidence of progress during the six year history of the SDI program is that we now have:

> A Phase I architecture that will meet the requirements for strategic defense, based on technically achievable sensors, command and control capability, and interceptors;
>
> Reasonable cost projections for such a system;
>
> A set of technology development projects that support Phase I as well as follow-on systems that could employ advanced concepts such as lasers and neutral particle beams; and
>
> A national strategic defense research and development infrastructure, staffed with extremely talented and dedicated professionals, that stands ready to resolve the remaining technical and engineering issues of strategic defenses.

A team of experts from the prestigious American Institute of Aeronautics and Astronautics Society spent a year looking at our program. This was the first group to review our entire program, including Phase I, follow-on systems, and our technology efforts. They said, "no fundamental obstacles were found." Deployment of a Phase I system depends on the resolution of technical issues currently being addressed. The engineering task remaining is challenging, but it can be accomplished.

SDI research is an excellent investment. That is why, in an era of scarce defense resources, the President is so supportive of the program. We continue to show impressive results. You can be assured that significant technological advances which occur in the future will be exploited to further reduce the cost and improve the performance of a prospective strategic defense system. Our past record amply supports this commitment.

Mr. Chairman, I believe that in the first six years of the SDI program we have demonstrated that our capability to develop and deploy effective defenses is constrained not by our ability to overcome technical hurdles, but by the funding we receive. I therefore urge you and the Members of the Committee to support our full budget request. With your backing, we can continue a balanced and vigorous program of research and development leading to deployment of strategic defenses for our nation.

I will be happy to answer any questions you may have.

PATENTS

Senator INOUYE. Thank you very much, General. Although your presentation went along on a rapid pace, it was very impressive. Just a matter of curiosity, I would assume that the technology resulting from your program is patented and that patent belongs to the U.S. Government?

General MONAHAN. Well, of course there are so many technology efforts, but any place that we fund it, we have the data rights, the proprietary rights, et cetera, and those belong to the U.S. Government, that is true.

Now I cannot guarantee you that there might not be some patent situations out there that I am just not aware of.

Senator INOUYE. Now, when industry uses the technology, do they pay royalty?

General MONAHAN. It depends upon the situation, who developed it, who paid for it and——

Senator INOUYE. Let us say we developed and paid for it completely.

General MONAHAN. If we develop and pay for it, if we want industry to take it further, we may provide it to them and tell them we want you to take that technology now and put it into full-scale development and thereby produce it, in which case I do not know or do not think that we would be charging them for it. In other cases perhaps we would.

I guess I really do not know the final answer to your question.

Senator INOUYE. Can you provide us with a memo on that?

General MONAHAN. I would very happy to do that, Mr. Chairman.

[The information follows:]

Industrial research in the SDI program is conducted under contracts awarded by the Strategic Defense Initiative Organization [SDIO], several contracting agencies within the Departments of Air Force, Army, and Navy, the Defense Nuclear Agency, other Defense Agencies, and civilian agencies, including the Department of Energy and NASA. All contracts include standard patent rights provisions promulgated in the Federal Acquisition Regulation [FAR], which, in turn, implement relevant statutes and Presidential direction. The general policies of these statutes and regulations leave title with U.S. contractors for inventions made with U.S. funds. The U.S. obtains a paid-up license for governmental purposes in the invention and, under prescribed conditions, may acquire title. The policies are reversed with respect to foreign contractors, i.e., the U.S. takes title and the foreign contractor is entitled to a paid-up license. The FAR allows foreign contractors to seek greater patent rights under prescribed conditions.

The first Government-wide statute on patent policy appeared in Public Law 96-517 which became effective July 1, 1981. Public Law 96-517 applies only to small business firms and nonprofit organizations, including universities. That law permits the small business firm or nonprofit organization to elect to retain title to inventions made under contracts or grants funded by the Government. The Government acquires a paid-up license. On February 18, 1983, President Reagan, by Memorandum to the Heads of Executive Departmental Agencies, extended the policy established for small business firms and nonprofit organizations by Public Law 96-517 to all other federally-funded contracts. As required by the FAR, DOD contracting agencies which award contracts for SDIO, follow these policies.

Under contracts awarded for SDIO by the Department of Energy, title to inventions rests with DOE. DOE contracting policies reflect statutes specifically governing DOE's active role in the field of atomic energy.

DEFENSE SCIENCE BOARD CONCLUSION ON BRILLIANT PEBBLES

Senator INOUYE. The Defense Science Board, General, the DSB, concluded that Brilliant Pebbles should not replace the space-based interceptor in the phase 1 strategic defense system at this time for several reasons, and chief among these reasons was that the Brilliant Pebbles design is neither complete nor stable and that its adoption now would prematurely freeze its technology development.

Now despite this recommendation by DSB, why have you essentially decided to place your primary focus on developing and adopting the Brilliant Pebbles system and architecture and drastically curtail your efforts on the alternative space-based interceptor?

General MONAHAN. First of all, we have efforts still underway in the space-based interceptor arena, and we funded that this year; for example, on just one aspect directly on SBI itself, to the tune of $73 million. So it is there, is a very, very good backup in case Brilliant Pebbles does not prove to be technically possible or does not prove to be successful.

We will have the answer on Brilliant Pebbles pretty soon, and I am looking now at what will we do next year. I am not convinced at this time that I have to put even that much money into the conventional system next year as we did this year.

The conventional system is much more expensive, it takes longer to develop, and I think that it has some operational characteristics that are very undesirable. So it is good as a backup as we see it at this time, and it is available as a backup. And, by the way, we are taking a lot of technology that came from that and inserting it into the Brilliant Pebbles themselves.

Senator INOUYE. The Board warned that to adopt the Brilliant Pebbles at this time would create substantial upset and delay in the SDI program. Is that a valid conclusion?

General MONAHAN. No; it is not. With the Brilliant Pebbles we are able to field the Brilliant Pebbles earlier than we had planned—than what had been planned to field the conventional SBI system—by a couple of years.

INDEPENDENT REVIEW OF SDI

Senator INOUYE. General, an independent review of the SDI program and its priorities has been underway for several months by former space and defense START negotiator, Ambassador Cooper. What are the major findings of his review and what changes will be made to the SDI program as a result?

General MONAHAN. The final report of the review I do not believe is quite finished at this time. It has been briefed to Mr. Cheney, and Mr. Cheney has not, as of this moment put out any further instructions for actions to take as far as the review is concerned.

I can tell you that the review endorsed the track we are on and in general we were complying with the President's security directive that he put out last fall. It recommended several studies we ought to take a look at and, in particular, one that has to do with looking at the midcourse and the terminal tier situation. We are trying to see if there is a way we can do that better, that we can do it simpler, can we adopt some of the Brilliant Pebbles-type of technology to that? So we are about to initiate that kind of a study.

Senator INOUYE. Was this study a top-to-bottom review of the whole program?

General MONAHAN. It was primarily a review of the program from the point of view of what the President in his directive told us that he wanted accomplished. He wanted to be in a position by 1993 to be able to make a deployment decision on SDI, told us to proceed with ground- and space-based both, to comply with the ABM Treaty—and we are doing so—to look very hard at the Brilliant Pebbles technology effort, and to make sure that we always fund that adequately to make sure it is technically limited and not funding limited. Those were some of the provisions.

The purpose of the review was to look at the program and see if the priorities within the program were properly established to accomplish what the President wanted to do. So that was the thrust of it.

I would not characterize it as a review that looked into every facet of the program.

Senator INOUYE. Thank you much, General. I have several policy questions which I will submit to Secretary Wolfowitz.

Senator Specter?

DEPLOYMENT OF BRILLIANT PEBBLES

Senator SPECTER. Thank you, Mr. Chairman.

Just a question or two, General. I had asked earlier about the practical application of Brilliant Pebbles. What is your best estimate as to when deployment could be considered?

General MONAHAN. I believe it will be in the late 1990's, Senator. The precise dates we were looking at today, of course, are classified, and I can provide them to you in another manner. But it is in the late 1990's.

Senator SPECTER. Is your current assessment that there is reasonable likelihood that given our current success and projections on research for the future, that there is going to be a successful defensive system at the end of the rainbow?

General MONAHAN. I think it is more—I do not think we have to go as far as the end of the rainbow, Senator. I think the successful defensive system is clearly within our technical grasp. So it is really a matter of national will and putting the resources against it in order to achieve it.

Senator SPECTER. How much faster do we get there by using the President's figure as opposed to last year's figure on SDI?

General MONAHAN. The President's——

Senator SPECTER. Well, in the budget the President has proposed a considerable increase over the allocation for SDI from last year. How much more does that buy for us?

General MONAHAN. Well, in order to deploy by the end of this century we would have to follow an increasing funding profile, and you will note—as you very rightly noted for fiscal year 1991—it is an increase over what it was for 1990 and then it builds up slowly over a period of the next few years.

We would have to follow that kind of a profile if we want to field a system within the 1990's.

Senator SPECTER. Last year it was $3.6 billion and the proposal is almost $4.5 billion, it is $4.71 billion. And we are going to have some very intense debates on this and in a nutshell, what happens if we stay at $3.6 billion, what extra do we get by going to $4.71 billion? The debate on the Senate floor is going to last about 6 hours on that question.

General MONAHAN. If we go down to $3.6 billion, then there would be options we would have to look at. It would depend finally, I think, on perhaps whatever guidance I got.

For example, we could simply delay the deployment of the first phase of the system, delay the deployment of the Brilliant Pebbles interceptors for example, or we could alternatively press on with the Brilliant Pebbles and slip out the ground-based part of the system, or we could deliberately put the Brilliant Pebbles and the ground-based kinetic energy interceptors on the backburner and start to invest our funds in something in the longer term, like directed energy weapons.

You have more or less those three categories I think of options to look at. Clearly, it would have an effect and I think the most likely thing is that we would be cutting our options and putting our deployments further out into the future, delaying the possibility of deployment of the system further out in the future.

NARROW VERSUS BROAD

Senator SPECTER. My final question is on the subject of narrow versus broad. We have had that debate and we are on the narrow interpretation. I think the deal between the United States and the Soviet Union was broad and said so, but the deal between the executive and the Senate may have been narrow. I do not agree with that, but that is the conclusion of the Senate and we are held to it.

To what extent does adhering to the narrow interpretation No. 1, delay, and No. 2, cost more?

General MONAHAN. I think it delays us some. I think it costs a little bit more and it is very difficult to calculate precisely just what that might be. For example, by staying with the restrictive interpretation of the treaty, some of those Brilliant Pebbles flight tests are being restricted in what we can do to some extent.

But personally I do not think that is the key issue as far as the treaty is concerned. We can live with the restrictive interpretation of the treaty up until about 1994, 1995. Sometime when we are in full-scale development, in Pebbles or ground-based interceptors, we would finally have to do testing that would require a broad interpretation of the treaty.

But the most important factor as far as the treaty is concerned is deployment. It is very clear that the treaty does not allow deployment of our interceptors in the late 1990's when we would care to do so, and I think that aspect of the treaty is what the Nation needs to be concentrating on.

Also we have had legislation in the last couple of years that has not allowed us to spend money on a long lead hardware for anything that would violate the treaty. I think within just a couple of years, a couple or 3 years, we might be coming up against the stops on that, which really does not have much to do with the broad versus narrow interpretation.

Senator **Specter**. I have finished my questions, but just a final comment. The deployment is going to be a lot tougher issue, which will have to be evaluated in terms of what SDI will do for us and how it impacts upon arms control. But after discussions I have had with General Abrahamson before, I continue to be very concerned about extra cost and extra delays.

When you are constricted to the narrow interpretation, and with the understandable concern that the military has on the executive branch officers have about being called before these committees which can be pretty tough on keeping within the bounds, et cetera.

Thank you very much, General.

General **Monahan**. Thank you, Senator.

Senator **Inouye**. Thank you.

Senator Bumpers.

Senator **Bumpers**. Thank you, Mr. Chairman.

SOVIET ADVANTAGE

General Monahan, first of all, I want to ask you about, if the Soviets should be inconsiderate enough to launch on a cloudy day, do they get an advantage out of that?

General **Monahan**. Well, it depends on how thick the clouds are, but it is a minute advantage. It just means that we may not see the initial launch until they break the clouds. But that is a matter of just 30, 40 seconds. And I say, may not, because we may be able to see them.

We always take that into account in all of our architecture studies. We bend over backward to go to a worst-case situation there, so we plan the system to operate such that it will not see a missile until it breaks through a thick layer of clouds.

Senator **Bumpers**. Well, let us take the SS-18, it is—that is a liquid-propelled missile, is it not?

General **Monahan**. Yes, indeed.

Senator **Bumpers**. So it has about a 5-minute boost time?

General **Monahan**. Somewhere in that vicinity; yes.

Senator **Bumpers**. Now, Minuteman II, for example, has about 120 seconds less than that; is that correct?

General MONAHAN. I do not know for sure. But I imagine it is less.

Senator BUMPERS. So anything the Soviets do, of course, to shorten the burn time, the boost time, is certainly going to be to their advantage?

General MONAHAN. It might be to their advantage, but it would cost them an arm and a leg to do it. It does not sufficiently stress our system, so we cannot still do the job. It helps them. I quite agree. It makes it tougher.

Senator BUMPERS. Let us assume they develop a series of missiles that have a 2½- to 3-minute boost time, and let us give them a 30- to 40-second advantage, because it is a cloudy day. I received a letter from your predecessor—how long have you been in this job, General?

General MONAHAN. About 16 months, 15 months.

Senator BUMPERS. I guess this has been between 2 and 3 years ago. Because I was concerned about the so-called man in the loop, and I got his assurance that a man would indeed be in the loop.

General MONAHAN. Yes.

Senator BUMPERS. Now presumably, a man could be in the loop by this method. For example, if we had an impending crisis with the Soviet Union, you might activate Brilliant Pebbles to the point that it becomes self-activating, because a crisis exists at which time it would be free to shoot down anything that appeared during that crisis period.

And so the burn time really would not give the Soviets much advantage in that case. Would it?

General MONAHAN. No; probably not.

Senator BUMPERS. Now, if we choose not to do that, if we choose to say that this thing can only be activated by a man at the time of boost, that does not make any sense at all. Does it?

General MONAHAN. Oh, no; I think it makes a lot of sense, Senator.

Senator BUMPERS. You do?

General MONAHAN. Yes, indeed.

Senator BUMPERS. Do you think—can you get the President out of the john or off the tennis court in 2 minutes?

General MONAHAN. Now, I do not know what some President may decide.

Senator BUMPERS. Some take more time than others.

General MONAHAN. I am not so sure there has to be a Presidential decision. As a matter of fact, I think it probably does not.

Senator BUMPERS. I do not think it could possibly be a Presidential decision quite frankly. I think you and I agree on that. So who is the man in the loop?

General MONAHAN. The commander in chief of Space Command is the one I think logically would be in the loop. He is the one that today has the authority to attack airplanes; for example, air breathers that are threatening this country. So that he already has that authority delegated to him. And the case here is simply delegating authority to intercept something that is bent on attacking us. So it is not the same thing as the authority to launch ballistic missiles.

Senator **Bumpers**. Is any damage done if he makes a mistake and activates it and the alarm was false?

General **Monahan**. I do not know. You can imagine different scenarios, but I think the damage could be very, very little. I mean, the only thing that is going to be destroyed are ballistic missiles.

ACTIVATING BRILLIANT PEBBLES

Senator **Bumpers**. So, if we get a false alarm, or even if under the first scenario I gave you, where we activate it in a crisis time, if it sees something and these Brilliant Pebbles start firing, not much damage is done. It is only if it is a missile that it is going to destroy anything any way? Shall I restate that?

General **Monahan**. No; I understand. First of all, the Pebbles, the only way I think to do this, of course, is to not activate the Pebbles until you have confirmation that something has been launched. And there are many, many ways to get that kind of confirmation. You get it from the Pebbles themselves.

There are about four or five Pebbles minimum covering every spot on the face of the Earth or areas of interest, I should say, maybe not on the face of the Earth but in areas of interest. So we get many independent views of that. So you really get a better handle on whether or not you have a false alarm. But I think when you get two or three or four independent sources reporting launch that is excellent evidence that, indeed, the launch has taken place. So we rely on those kinds of things, rather than just one single one.

Senator **Bumpers**. The reason I am asking for that—and I am reasonably satisfied with you answer—is because you are dealing with a tremendous amount of technology here and a tremendous number of computers which can and do malfunction.

I remember when Bill Perry was Assistant Secretary for Research and Development. He told me about getting a call at 2 in the morning telling him that the Soviets had launched 1,000 missiles, and he said, he could hardly go back to sleep. So that just shows that misinformation can be given. And we obviously concluded that a launch had not occurred, but it sure ruined his whole night. And I have no reason to believe that that will not continue to happen in the future.

I mean, none of these things are absolutely fail-safe. And I want to assess the damage in case that happened and the thing was activated and it was a false alarm. Because you would be hard-pressed to ever convince me that that is not a possibility, no matter how remote.

General **Monahan**. Right. I think one of the advantages of today's technology and one of the advantages of the Brilliant Pebble system is that computers do not have to work in a series. They work independently and in parallel. So I would have a lot of difficulty understanding that four or five computers on Brilliant Pebbles up there all malfunctioned in the same way, at the same time. That is very difficult to understand.

Senator **Bumpers**. They are all going to be independent. Right?

General **Monahan**. Yes, indeed. And besides that, you have the BSTS satellite.

Senator **Bumpers**. When you activate them, you activate all of them at the same time?

General **Monahan**. Well, we can choose, pick and choose the way we want to do that. We have a lot of options as to how we would activate it.

Senator **Bumpers**. Decisions have not been made on that?

General **Monahan**. Decisions have not been made. But I think the way I envision the system will be built some day is a way that will provide a lot of options to the national leadership.

Senator **Bumpers**. Now the system is not going to be effective against very low trajectory missiles or ALCM's or bombers; is that correct?

General **Monahan**. That is right. The whole SDI program is designed against ballistic missiles, not against air-breathing threats.

COUNTERMEASURES

Senator **Bumpers**. Now, I had a very prominent former negotiator in strategic talks tell me that one of the things that he would recommend to Gorbachev is not to build a countersystem. I have no reason to believe that they could not. It might take them longer. We may be 10 years ahead, we may develop countermeasures to defeat. We will stay ahead of them in the business.

I have no reason to believe that at some point, they could not build one. And politically it would be very difficult for a Soviet leader not to do it. But he said he would advise whoever the President of the Soviet Union or General Secretary, whichever it is going to turn out to be, not to build one, because he thought it could be defeated so much cheaper.

And one of the things he said was, he would recommend that they put sea-launched cruise missiles on platforms a couple of 100 miles off our coast. There would be no limit in the absence of a treaty agreement to how many of those things they could put out there. And as Pat Moynihan says, they can go under the Brooklyn Bridge. They do not have to come in from outer space.

And when you think about that—now they do not have much bomber capability. We just went through that with General Chain before you got here. But he said if push came to shove, of course, you know, if they really felt threatened, they could always introduce nuclear weapons into this country clandestinely. And I could not argue with that.

We cannot keep tons of heroin and cocaine and marijuana out of the country. I have no reason to believe somebody could not plant one under the Washington Monument if he really wanted to. So this is not a fail-safe system, is it? So far as the security of the United States is concerned?

General **Monahan**. Well, no defenses are fail-safe entirely. Certainly this one would not be either. But I have just a couple of comments on what you had to say there. If somebody put cruise missiles on platforms near our coast, I think, that is an incredibly threatening scenario—threatening to us.

I cannot imagine that this country would ever let anybody get away with that any more than we would let them get away with putting——

Senator **Bumpers**. General, up until just recently they kept two Yankee submarines off our east coast, and two Yankee submarines off our west coast. Why is this more threatening than that?

General **Monahan**. Well, the way you described it, you said, very near our coast—platforms very near our coast.

Senator **Bumpers**. Within 5 to 6 minutes of every city on the east coast.

General **Monahan**. Cruise missiles will not be able to reach us in 5 to 6 minutes. If they had some that did, I would say, that is a very serious situation and somebody has to do something about it. As far as clandestine means of bringing nuclear weapons into this country, if we really think that that is a serious threat to this country, a reasonable threat, I think we need to be doing something about that.

I do not think that it is as simple for people to do it as is sometimes portrayed. But nevertheless, if we think that is a reasonable threat, then we probably need to be developing programs that would address that.

AMRAAM

Senator **Bumpers**. General, you are familiar with the problems of the AMRAAM. Are you not?

General **Monahan**. Some of them; yes.

Senator **Bumpers**. Here is a story in the Washington Post dated February 13, "Air Force refusing deliveries of air-to-air missiles as unreliable." We have been working on that for 10 years. The cost of that missile went up 40 percent last year alone, and it still will not function, and it still is ineffective in cloud cover. That was supposed to be the greatest advantage of AMRAAM.

And I say that simply to say, I know you cannot be absolutely sure. But if we cannot build an air-to-air missile, the technology for this looks to me like, I mean, this is peanuts compared to Brilliant Pebbles?

General **Monahan**. No; I do not believe so. It is not at all.

Senator **Bumpers**. You think it is as complicated as Brilliant Pebbles?

General **Monahan**. I recall the AMRAAM, for example, actually has a small radar on board. We do not have a radar on board Brilliant Pebbles. We have infrared sensors, passive sensors. We do not have to go and search out a target. We do not have to fly in the atmosphere either which again makes the problem simpler.

And the problems of reliability in the captive carry reliability program, for example, that caused the problems with the AMRAAM where it had to withstand many, many, many hours out there on the wing of the F-15 in a very tough vibration environment puts a tremendous stress on that kind of hardware that you do not have with Brilliant Pebbles. They just float around in space.

DEFENSIVE STRATEGY—UNITED STATES AND SOVIET UNION

Senator **Bumpers**. Two final questions, Mr. Chairman. No. 1, if we had deployed Brilliant Pebbles and within 10 years the Soviets have one identical to it and just as good, are both nations well served?

General **Monahan**. I think that we are, because I think it is a demonstration we were heading toward defenses rather than offenses as far as strategic deterrence is concerned. Perhaps we are achieving some objectives there by getting more to a defensive strategy and away from weapons that really hurt people. After all, the Brilliant Pebbles, for example, cannot hurt anybody. All they can do is intercept ballistic missiles.

Senator **Bumpers**. Well, I am just thinking, General, that if we get this thing deployed, they may deploy one, as I say, for political purposes because the people would demand it, knowing that we had some kind of defense against ICBM's.

General **Monahan**. Recall that they already have defense against ICBM's. They are the only country in the world that does. They have that system deployed around Moscow, which can protect the Soviet Union.

Senator **Bumpers**. They probably have about as much confidence in that system as you have which is less than 5 percent, I would think.

General **Monahan**. That is about the size of the raid where it would be coming from.

Senator **Bumpers**. Well, I know we gave up a similar system because we had no confidence in it, years ago.

But if I were Gorbachev I would be inclined to take the advice of using bombers and ALCM's and SLCM's and all kinds of warheads to defeat the system. I think there are possibly some countermeasures, other than that, that might be used. But, you see, I do not think it is very stabilizing for both of us to have these systems up there. When you get to the point where just who pushes the red button first to activate his system.

ABSENTEE RATE

One final question that is on the so-called absentee rate, we are going to have 4,000-plus of these things in an Earth orbit; is that correct?

General **Monahan**. That is true.

Senator **Bumpers**. Now, what percentage of those would be over the Soviet Union at any given time and usable for a Soviet launch?

General **Monahan**. I do not recall the necessary number. The way we size the entire system takes that into account, what we call the absentee rate, and besides the absentee rate what we can do to accelerate additional Pebbles into the battle should we care to do so. We have that kind of measure, too.

ABANDONING SENSORS

Senator **Bumpers**. Are we going to abandon other sensors in space, other than on the Brilliant Pebbles itself?

General **Monahan**. Are we going to abandon, you say, Senator?

Senator **Bumpers**. Yes; we have been talking about SSTS's.

General **Monahan**. OK, fine. As I said, one of the beauties of the Pebbles is that it is highly autonomous, not dependent on getting signals from other satellites. Therefore, it does not have fragile communications. Fragile is not quite the right word, but an awful lot of things that have to happen right.

The only thing that really has to happen right, as far as the Brilliant Pebbles is concerned, outside of the Pebble itself, is for somebody to tell them to go. And that communication is done through a flood routing scheme. Literally every Pebble gets the message and it sends it to four others. And whatever message comes from this country from one of the several ground entry points gets to every Pebble within less than a second, even the one that is furthest on the other side of the world. So there is great redundancy and robustness built right into that.

GROUND-BASED INTERCEPTOR

Senator **Bumpers**. General, you still intend to have a ground-based interceptor to take care of the terminal phase, or just before the terminal phase, do you not?

General **Monahan**. Yes indeed.

Senator **Bumpers**. Mr. Chairman, just a comment. As a policy matter I have always been opposed to SDI. I have always said that I would consider $1 billion a year for continuing research on it in the hope, or that somehow or another, we would be able to work out a real treaty with the Soviet Union that would make it sort of meaningless, and certainly too high cost for the benefit.

Having said that, I do think that the possibility of a limited SDI against a Qadhafi or a Saddam makes a little bit of sense. But I am—well, I am not going to get into that. My wife says I have gotten so preachy she cannot stand it.

Senator **Stevens**. She has got a lot of patience.

Senator **Bumpers**. I did not ask for any gratuitous comments. But in any event, as I say, I think it might make some sense from that standpoint. But I do not like it from a policy standpoint and from a future destabilizing standpoint at all.

But, General, I do think you do a very fine job with the program and I respect you and your information and your technology and your candor with this committee

General **Monahan**. Thank you, Senator Bumpers.

Senator **Inouye**. Senator Stevens?

Senator **Stevens**. General, I have been around a long time. I am almost as patient as his wife. That is the first time I have heard him be so gracious about it.

Senator **Bumpers**. She is a counsel of peace. She believes in peace abroad and war at home.

Senator **Stevens**. If we did not have Senator Bumpers, we would have to defend him because he makes us think about the whole subject very thoroughly.

I do want you to know that we took a trip down to some of the facilities. I have never been so impressed with anything as I was with the miniaturization concepts that you have been pursuing and the success of those concepts and the ultimate cost saving of the successes that you have had.

It does seem to me that we have still the genius of the idea of a nonnuclear response to a nuclear attack that must be pursued. I congratulate you, as I said, on the rate of success in the experiments that we have been examining into. This is an open hearing so I am not going to talk about some of them.

But I would urge, in any way we can do so, to get more of our individual Members of the Congress, particularly the Senate, to examine into some of those programs.

I have just a couple of questions, really. I apologize for being away; I had another appointment I could not avoid.

UNITED STATES/ISRAEL ANTIBALLISTIC PROGRAM

I have followed with a great deal of interest the United States/Israel antiballistic program. Based upon the reports I have had so far, there have been some successes in the first phases of that program, the Arrow program. But I was disturbed the other day to be informed that the first memorandum of agreement expires shortly.

General MONAHAN. Yes.

Senator STEVENS. I wonder if you could tell us, if this is a proper forum to do so, what the current status of that program is and what your plans might be for the advanced development program for Arrow and if there is going to be a follow-on MOU?

General MONAHAN. OK, fine, Senator.

First of all, the Arrow is an experimental ground-based interceptor program that we have with Israel. It consists of a series of four flight tests. One is not against a target and the last three are against targets. But it is strictly an experiment and most of it takes place between now and about the middle of next year.

The program is ahead of schedule and under cost by a period of 6 weeks or so ahead of schedule. It is not very often that we see that happening. It has been working very well from that point of view.

As it stands today, however, after that series of tests is complete, and those are just early experiments, the program would end. There is no follow-on program.

We have been in informal discussions with Israel on a possible follow-on to the Arrow program. They have a proposal, and we have taken a look at it and had discussions with them on a program that would follow on to the current experiments. I think it is a program that would be achievable, technically achievable, and technically worthwhile. It would have to start next year. As of the present time at my level, we have been able to do that, come up with what we think would be a good program.

Now, there are, of course, policy and economic considerations, and certainly the Arrow is not the entire solution to the problem of ballistic missile defense in Israel, but it is an important part of it, so it all has to be looked at in that bigger context. But it would take a further agreement with Israel to proceed with a follow-on program on Arrow.

Senator STEVENS. Is there redundancy within your system? Is that the only ground-based type of system we are experimenting with? Or is there a redundancy that has got a competitor with our own operation?

General MONAHAN. We do not have anything that is an absolute direct competitor. The Arrow is a type of ground-to-space missile, ground-to-air missile, if you will, that has certain features as far as size is concerned, altitude at which it intercepts, and the coverage that is has or the radius. Other schemes that we are looking at, the

U.N. for example in this country, is different and has different operational parameters.

So they are not absolutely direct competitors. They are to some extent. They have some overlap, but they are designed to do exactly the same thing. The Arrow, for example, is designed to defend all of Israel. If we look at our systems we are looking at defending specific areas on a battlefield.

Senator **STEVENS**. It also has different application, does it not, in terms of being able to be utilized in an area of potential terrorist threat, and that it has a more defined area of defense concept?

General **MONAHAN**. Yes, indeed.

Senator **STEVENS**. I remember so well my visit to the Persian Gulf and some of the problems that we discussed in the aftermath of that visit. I have great interest in that because of some of the threats that were discussed at that time. I would urge you to pursue it if you can.

FREEZE ON SDI GROWTH

Finally, and I have kept everyone too long, let me ask you about the problem of the freeze on SDI growth. If that continues, you have a series of options, obviously, trying to maintain the pace of research. Have you discussed what is going to happen to this program, I assume you have, if there is a continued freeze of growth in the SDI research budget?

It seems to me that you have a structural problem in that some of the contracts that early on were designed to expand up, and that expansion required additional money, and yet you have some now that ought to phase in and you cannot phase them in without doing something with the preexisting contracts. What is really going to happen to this system and its robust quality if we do not get the expansion that is needed?

General **MONAHAN**. Well, the problem you described, Senator, we had last year, as you perhaps know. As a matter of fact, reducing from the $4.6 billion that President Bush requested down to the $3.6 billion caused us a tremendous amount of turmoil just as you described it. In other words, there are contracts that have been established on programs, that have been established, that require the expanding budgets.

When that did not take place, we simply had to terminate some. That is a very, very painful thing to do. For example, we had to terminate the beam control system for the ground-based free electron laser. That is just one example. We had to cut back on our university work, something I did not want to do at all. But in fairness to everyone else who has been working on the program, we had to take some cuts there too.

So, I got a stack of letters from people on where we took the cuts and why we had to take them. So it caused just a tremendous amount of turmoil. We will have the same sort of situation again this year. The situation is just not going to get any better if we continually anticipate higher funding levels and then it always just stays level. That is going to be kind of an annual problem.

Senator **STEVENS**. Your chart demonstrates that. Your phase I in 1990 was $1,688 and in 1991 is $2,350. I presume it goes on out and it continues to absorb more than the actual increase that you receive.

General **Monahan**. On a percentage basis, yes, indeed, eventually it will.

Senator **Stevens**. Is there any possibility of reassessing phase one to see if it is all necessary?

General **Monahan**. Well, as I mentioned earlier, we did the major studies on the space-based architecture last year and came up with the Brilliant Pebbles answer, because it was cheaper and quicker to do. And now this year we are looking very carefully at what I call the midcourse and the terminal tier problem. In other words, we are looking at the ground-based part of the architecture there and trying to make that more affordable.

Senator **Stevens**. Well, thank you very much. I intend to try to continue that field visit of mine. I had to cut out California because of a personal problem. I hope to get that back in sometime. Maybe we can blend that in with part of what the chairman was talking about.

But I do think that is an extremely interesting thing. Mr. Chairman, I do not know if you know it, but the Soviets were going to be there the week after I was there. Did that visit take place?

SOVIET VISIT TO LASER TEST SITE AND LOS ALAMOS

General **Monahan**. Yes; the Soviet team visited the laser test site at San Juan Capistrano in California and also the Los Alamos Lab and looked at the neutral particle beam program, the BEAR experiment that I talked about a little bit earlier.

Senator **Stevens**. Thank you very much. Nice to see you, General.

Senator **Inouye**. Thank you.

Senator Harkin.

SDI AND THIRD WORLD

Senator **Harkin**. Thank you, Mr. Chairman. I just have a couple of things I want to followup on that were already brought up, General, sort of a followup to what Senator Bumpers said toward his closing.

Some are saying now that the SDI could be used to stop Third World or terrorist attacks with ballistic missiles. In particular, some proponents of Brilliant Pebbles are suggesting that they might help to defend against these errant missiles from Third World countries.

General Monahan, how effective would Brilliant Pebbles be against Third World ballistic missiles?

General **Monahan**. Well, it could be used against Third World ballistic missiles. It depends upon exactly what that missile looks like and how many of them are launched and what kind of warning time we might have and those sorts of things.

I think as a practical matter, though, that using any kind of a space-based interceptor, Brilliant Pebbles or whatever, in an antiterrorist mode would require that we give up capability to intercept in the midcourse. We would have to put different sensors on board.

In other words, we would have to modify them. We would have to make some modifications to them because, after all, if it is this terrorist missile that you are concerned about we want to be 100-percent effective against that. We want to make absolutely sure we get them, we have to be able to see them fast enough, be able to react fast enough, shoot fast enough, and we probably want to shoot more than once.

We want to shoot, for example, to make sure you get that errant missile. You want to be 100-percent effective. So I think you would have to make modifications to the Brilliant Pebbles in order to do that.

Senator **Harkin**. Let me explore that just a little bit, because I want to understand it fully. I understand that these Third World missiles have very short ranges. I have been hearing 1,500 kilometers.

General **Monahan**. Against the shorter range missiles a space-based type of architecture is probably not the sort of thing that would be most effective. I think, then, the sorts of systems that would utilize—for example, endoatmospheric interceptors such as the HEDI that I showed here earlier—in other words ground-based solutions might be better.

Senator **Harkin**. Or the Israeli Arrow missile?

General **Monahan**. Or the Israeli Arrow is a possibility also, sure.

Senator **Harkin**. The Soviet SCUD-B has a range of 300 kilometers, a burn time of less than 80 seconds, so Brilliant Pebbles would not be effective against that?

General **Monahan**. No, no, not at all, certainly not.

SPACE-BASED INTERCEPTOR

Senator **Harkin**. I just wanted to get a clarification. Finally, I wanted to follow up on a point that the chairman brought up earlier when he said the Defense Science Board recommended that Brilliant Pebbles not be selected as the main weapon for phase 1 and a parallel program with SBI should proceed to explore all options.

You stated that SBI was at $73 million. What is your request for next year?

General **Monahan**. I would have to go look it up, Senator. I do not recall what we plan precisely for SBI for next year.

Senator **Harkin**. Well, let me give you the figures I have. The only reason I ask is just because I wanted to see if we track on this. I have figures that say your budget request cuts SBI from $73 million to $53 million.

General **Monahan**. It might very well.

Senator **Harkin**. While Brilliant Pebbles is increased quite dramatically, from $129 million to $329 million.

General **Monahan**. Yes.

Senator **Harkin**. Again, if SBI is primarily a research program, why not follow the advice of the Defense Science Board and continue SBI and BP at the same level?

General **Monahan**. Well, that is a very good question. First of all, the way I read what the Defense Science Board had to say—and, by the way, they are not the only people we get advice from.

There are many others, including our own very capable engineers, so I take advice from all quarters when we have those kind of considerations to look at.

But we decided that a reasonable level for the SBI, conventional SBI, for this year was $73 million. For example, they wanted to go so far as to do some flight tests that were going to cost $250 million apiece. We just did not have that kind of money to put into it.

So it did not make any sense to me to be doing that when I am going to be starting flight tests of Brilliant Pebbles, which are much cheaper, and the Pebbles has a shorter schedule associated with it. Some people think that the conventional system was further along than Brilliant Pebbles. I do not think that at all, really, when you get right down to it.

So in fact the technical challenge and the opportunity for things to go wrong in the more conventional SBI is much greater than with Brilliant Pebbles.

Now what are we going to do for the future? I think that is what is important. For next year, I do not know for sure yet how much we would put into the conventional SBI program. It depends, among other things, on the progress we make with Brilliant Pebbles between now and then, how we come out on selection of contractors for the concept definition phase, for example, that we are about to embark on with Brilliant Pebbles for this next month, in June.

It also depends upon the study efforts that we have underway that will be taking a hard look at, as I said earlier, the midcourse and the terminal tier. And then, finally, it is going to be dependent upon what is going to be the total appropriated funding for the entire SDI program for next year. And those kinds of parameters are what will go into our final plans for what we will spend on the conventional SBI.

We got a lot out of the conventional SBI; there is no question about it. That geometrically arrayed parallel processor came more or less from that program. Certain of the hardware that is on the Brilliant Pebbles, some of the technology, came from that program and is continuing to do so.

But, as I said, we will continue to keep it as a reasonable backup, funded at a reasonable level, as long as I think we have to.

BOOST SURVEILLANCE TRACKING SYSTEM

Senator **Harkin**. One last thing on the boost surveillance and tracking system. Again, the Defense Science Board called this a large, complex, technically risky program that would raise ABM Treaty problems. You already discussed with the chairman or someone about the testing of Brilliant Pebbles and when that bumps up against it. You have already covered that, so I will not get into that.

Am I correct in understanding that the BSTS is not needed for the Brilliant Pebbles system?

General **Monahan**. It is not an essential element of the battle management and command and control in Brilliant Pebbles the way it was with the SBI system, so it is not an essential part—very important, though, for the tactical warning and attack assessment, the mission that has to be performed by this country whether we have SDI or not.

Senator HARKIN. So my question was, if it is technically risky, may not be needed, may violate the ABM Treaty, why are we moving ahead?

General MONAHAN. Well, let me address those, Senator. First of all, regarding violating the ABM Treaty, the people who are charged with treaty compliance review have concluded that it does not violate the ABM Treaty as far as research, development, and testing is concerned. We may design and develop the system such that it does both the tactical warning and attack assessment and the battle management defense mission; we may not deploy it with the battle management defense for SDI on board, but we may do the design and development of it.

The way I see it right now, I guess, we could even back off from that if we wanted to as far as pursuing the BSTS program and simply pursue it for the purposes of tactical warning and attack assessment and just leave the ballistic missile defense provisions there as growth options. That is perfectly treaty compliant. So we do not have that kind of a problem.

Regarding technically difficult, I think it is going to be a challenging program, but in order to address that—and remember now we are about a year further along than when the DSB looked at it and in that year's period of time the two contractors that have been in the dem/val stage have conducted what we call ground demonstration tests.

What we had them do literally was put the satellite together on the ground and see if it would function. We even had it look at some very, very dim targets, which we can generate—incredibly dim lights—and see if it would pick them up and run all the way through the device, through the mirrors, the optical trains, and all that sort of thing, into the processing center and be able to do its job.

Those ground demonstrations have proven that the BSTS-type satellites can work. So I am very pleased with that. We had extended that effort by 6 months to make sure that they had a lot of time to do the ground demonstration effort. We did that last year. I am glad we did, but it is turning out to be very, very good.

So I think if you went back and asked the Defense Science Board again this year to take another look at that, I think they would be impressed, just as I am, with the progress that has been demonstrated through the ground demonstrations. They are ready for full-scale development. Industry is ready for it.

There has been about $1 billion invested by the American taxpayer on this program, on the BSTS program. It is one that is working. If we do not go to full-scale development next year—and we can do so in a treaty-compliant mode—we are going to lose those industry teams that have been put together and this country is going to, 20 years from now, still have those very vulnerable ground stations overseas that are doing data processing for what our DSP satellites are seeing. I think we would be in a very bad position.

As I mentioned earlier, one of the great features of BSTS is the fact that we can get rid of those very vulnerable overseas ground stations and can do the data processing on board the satellite and send the messages down, send the answers down in a very jam-resistant mode.

Senator **Harkin**. So you say it is generally accepted that you can move ahead with full-scale engineering development of BSTS and still comply with the ABM Treaty?

General **Monahan**. Yes.

Senator **Harkin**. That is generally accepted?

General **Monahan**. That is approved by the people who are charged with treaty compliance review.

Senator **Harkin**. Thank you.

Thank you, Mr. Chairman.

Senator **Inouye**. General, over the past several months I have heard dozens of different explanations, justifications of the Brilliant Pebbles concept. The one I heard from you today is about the best—that it was not intended to nor will it injure or threaten people; it simply defends them.

General **Monahan**. Yes, indeed.

Senator **Inouye**. I think that explanation and justification is just as good as all the others I have heard.

With that, I thank you very much for your testimony this morning. It has been most helpful to all of us, as we proceed toward the markup.

ADDITIONAL COMMITTEE QUESTIONS

We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing.]

QUESTIONS SUBMITTED BY SENATOR INOUYE

General

QUESTION: General Monahan, the balance in SDI's budget and program between developing near-term and far-term technologies is a major issue for Congress. You say the balance exists in the FY 91 plan.

How is this claim justified, when SDI budget data indicate that FY 91 funding for near-term technologies represents 34 percent real growth over FY 90, and FY 91 funding for far-term technologies is only 13 percent real growth?

ANSWER: Far-term technology, generally, is a laboratory exercise and, by its nature, "cheaper" than near-term technology which involves flight/space testing and "bending metal." To use a seesaw analogy, balance is achieved by weighting (funding) one end (near-term) more because of the location of the fulcrum (pay-off potential). Our program is in balance because of the relative potentials, not because of the absolute number of dollars in each technology.

Question: General, the FY90 DOD Appropriation Conference Report warned that continued erosion in the resources devoted to Directed Energy Weapons may result in Congressional earmarking of future appropriations to achieve a prudent budget balance between near-term and far-term technologies.

The fiscal 1991 request for DEW represents a 24 percent real decline in spending compared to its high water mark year of FY88. However, the FY91 request for KEW represents 14 percent real growth since then. Doesn't the FY91 budget represent further erosion in DEW funding?

Answer: The DEW FY91 ($802.9M) budget request is a 15% increase over the FY90 ($703.3M) appropriation. We recognize the need for additional DEW funding and have made provisions for this in FY91. The FY91 request is our attempt to recover from the $3.5B reductions to our requests since 1988, not further erosion of DEW funding.

Question: General Monahan, the balance in SDI's budget and program between developing near-term and far-term technologies is a major issue for Congress. You say the balance exists in the FY91 plan. In FY90, several of the Directed Energy Weapons technology development efforts and major experiments have been significantly delayed or scaled back. What major changes in these programs are occurring? What justifies the reductions?

Answer: In the chemical laser program, the Zenith Star space experiments, involving the integration of the high-power Alpha laser and large aperture LAMP mirror, have been delayed from FY94 to FY98. This delays unequivocal proof-of-principle for the use of high-energy laser weapons for strategic defense by a like amount. Initiation of the detailed designs for the Zenith Star spacecraft and payloads, scheduled to begin in

FY90, has been deferred, as has the acquisition of long-lead hardware. The reduction is a consequence of FY90 appropriations well below those requested. Also, development and validation have been slowed for innovative technologies for very-high-brightness systems for countering responsively hardened threats.

The neutral particle beam program also suffered from funding shortfalls in FY90 which resulted in delay in technology development and program schedule slippage. The Ground Test Accelerator (GTA) being built at Los Alamos National Laboratory had a shortfall of $10M which has delayed the beamline integration. This experiment will provide the first complete integration of a NPB beamline scaleable to weapon level. The Continuous Wave Deuterium Demonstrator (CWDD) being built by Grumman Aerospace Corporation at Argonne National Laboratory suffered from a $3.5M funding shortfall which has impacted the support facility preparation as well as security requirements at Argonne and has resulted in delay of component purchases for the CWDD beamline. CWDD will demonstrate the continuous wave operation required for the NPB weapon/discriminator. It also demonstrates the use of a more lethal deuterium particle. The NPB Power System Demonstrator (PSD) had a $3.5M funding shortfall which resulted in a six-month schedule slip in the preliminary design and a cost growth of $2.5M. The PSD will demonstrate the integrated operation of space traceable non-nuclear power technology for the NPB. The Neutral Particle Beam Space Experiment design had a funding shortfall of $4.0M which resulted in a 4-month delay in the design. This experiment will address the space operability issues for the NPB as a follow-on to the highly successful Beam Experiment Aboard a Rocket (BEAR) experiment. The NPB technology base program had a funding shortfall of 10M. This most significantly impacted the neutron detector development. The program was reduced to a "keep alive" status. Other areas significantly reduced included advanced ion source development, advanced neutralizer and beam sensing concepts, and superconducting accelerator technology.

To accomodate FY90 budget shortfalls, the free-electron laser (FEL) program was restructured from several large contracts running concurrently to a series of contracts that will run sequentially. The laser sub-system was chosen as the initial major effort. This change in program plan required the termination of the beam control contract with Lockheed and the system integration contract with TRW.

(SFRD) In the nuclear-driven directed energy weapons (NDEW) area, funding reductions have caused [Deleted] experiments to slip drastically. Several years ago, funding allowed a dedicated experiment about every

tests about every [Deleted] The significant reduction in fundinq has caused a delay between tests in excess of and may cause a delay between [Deleted] tests in excess of As a result determination of technical feasibility, and the assessment of a Soviet threat to our strategic defense system, have been substantially delayed.

Question: General Monahan, the balance in SDI's budget and program between developing near-term and far-term technologies is a major issue for Congress. You say the balance exists in the FY91 plan. General, what progress has been made during the last year in the Directed Energy Weapons programs, and what are the planned highlights of SDI's activities in this area in FY 91?

Answer: For the chemical laser program: Further testing of the Alpha laser has occurred. Alpha is a high-power device designed for space operation, whose performance can be scaled readily to the power and beam quality required for a laser weapon. Two integration programs have been created to provide, by FY93/94, at least part of the data which the now delayed Zenith Star would have produced. The Alpha/LAMP Integration (ALI) experiments consist of a series of ground tests demonstrating stable control of a focusable high-power laser beam. The Space Laser Experiment (SLE) consists of a series of tests demonstrating operation of a moderate power chemical laser in the appropriate environment. Conceptual designs for both ALI and SLE will be complete by the end of CY90. Procurement of long-lead hardware for the ground experiment has begun. Development of a technique for smoothly scanning a high-power beam from one target to the next has continued with testing of a scaled three mirror telescope and outgoing wavefront sensor. Absolute phasing of LAMP large aperture mirror segments has been demonstrated, and a program to scale LAMP mirror technology to full-size weapon class mirrors has been initiated. The initial phase of a study was completed identifying approaches for assuring a capability for full scale production of very large mirrors. The planned highlights of the FY91 program are: complete Alpha baseline performance tests; complete final designs, and initiate fabrication, for high-power ground and moderate power space integration experiments; complete conceptual design of full-scale flight-capable telescope primary mirror; complete optical retargeting experimental system and begin performance testing; complete test validating performance of holographic optical elements at high-power; and, activate NACL chemical laser for testing of innovative technology concepts for very-high-brightness systems (short wave-length chemical laser and high-power beam control using non-linear optics phenomena).

In the neutral particle beam program, the principal FY90 Accomplishments were:

- First Neutral Particle Beam accelerator flown/operated in space (BEAR Experiment).
- Army Background Experiment launched and is providing high quality space neutron data.
- Scalable component technology demonstrated
- Accelerator
    - Ion source
    - Radio Refrequency Quadrapole
    - Drift tube linac
    - Funnel demonstration
- Beam Sensing and Control

- Neutralizer
- Power
- Ground Integration Critical Design Review complete.

Hardware manufacture and assembly well under way for both Ground Test Accelerator and Continuous Wave Deuterium Demonstrator.

- Contract for the design of Power System Demonstrator and the NPB Space Experiment initiated.

Highlights of the FY91 NPB Program include: Complete manufacture of hardware, and assembly of Continuous Wave Deuterium Demonstrator (CWDD). Complete manufacture and assembly of 24 MeV accelerator for the Ground Test Accelerator (GTA). Complete the preliminary design for the Power System Demonstrator (PSD) and the NPB Space Experiment. Down select to one contractor for manufacture of PSD hardware. Award follow-on option for critical design and manufacture of hardware, assembly and test for the NPB Space Experiment. Continue advanced component technology development to include accelerator, components, neutron detector, pointing and tracking.

FY90 progress in the FEL program includes:

- Selection of rf FEL for further development.
- FEL operation at 0.6 micron with a ring resonator cavity.
- Development of advanced technology photo-cathodes.
- Demonstration of an accurate computer model of an FEL
- LACE/RME space flights
- Completion of all support facilities at White Sands Missile Range.

The FY91 Plans for the FEL include:

- Completion of SABLE laser propagation experiments.
- LACE/RME
- Advanced FEL demonstration at LANL (HIBAF)
- Critical Design Review of laser design for WSMR.
- Demonstration of true high-power accelerator design (MCTD).

The FY90 highlights for the ATP-FC program include launch and operation of two satellites, and continued progress in the Starlab program.

On 14 February 1990, SDIO launched two satellites on a McDonnell Douglas Delta II. The two satellites, the Low Power Atmospheric Experiment (LACE) and the Relay Mirror Experiment (RME) are meant to demonstrate the technologies required in two elements of the ground based laser concept. LACE will measure the effectiveness of compensating a laser beam to optimize the power transmitted through the atmosphere and RME will demonstrate the ability to relay that energy between geographical locations via mirrors in space. This launch also was DoD's first commercially contracted rocket launch.

Since the launch date LACE has completed systems checkout and reached most of its operational capability. The primary experiment of measuring the effect of atmospheric compensation of a laser has been impaired by the limited returns from the satellite retro reflector although beam intensity distributions have been measured. The satellite sensors are working correctly and solutions to the retro reflector problem have been identified and are being developed.

Other systems on LACE are working as designed. The Ultraviolet Plume Instrument (UVPI) has recorded stars, ground sources and atmospheric background and is ready to record rocket plume data from cooperative launches scheduled later this year. The Army Background Experiment (ABE) has successfully measured the neutron background at several locations around the globe and passed this data to the Los Alamos National Laboratory. This data will be used in designing future neutral particle beam systems to discriminate between warheads and decoys during the mid-course of their trajectory.

The RME satellite has worked as planned but progress in the experiment to relay a laser beam has been delayed because of difficulties in accurately tracking the satellite from the ground. These difficulties are not unusual for a system as complex as RME and probably should have been expected. Ground tracking is now being completed routinely and the satellite's response is nominal. Completion of the beam relay experiment should be completed in the next few months.

The Wideband Angular Vibration Experiment (WAVE), an additional experiment on the RME designed to measure vibrations on the satellite, is also working as planned. This sensitive instrument is expected to provide important information about the satellite's vibration environment during beam relay. Both LACE & RME experiments are important advances in technologies required for a ground based laser system.

Highlights of the FY90 Starlab program include:

- Delivery of major protions of the Starlab Experiment hardware
    - Wavefront Control Experiment
    - Large Pointing Mirror Assembly
    - Beam Walk Mirror System
    - Illuminator Laser
- Start experiment integration at LMSC

The FY91 plans for Starlab are:

- Completion of all Hardware deliveries
- Start and Complete Starlab Systems Test (Oct 90 - Jul 91)
- Deliver Starlab Experiment to NASA KSC for integration into Spacelab
- Demonstration of target booster launch in 1QFY91.

In the NDEW area, little progress could be made in FY90 because of funding limitations.

(SFRD) The last NDEW test, a very successful which demonstrated understanding of several key physics issues, was conducted highlights for FY91 include data analysis of and conduct of experiment. [Deleted]

INTERNAL BUDGET ALLOCATIONS

Question: General, the Committee has been informed you will be reprogramming funds within the fiscal 1990 SDI budget to add $45 million to the Brilliant Pebbles project. This would allocate slightly more to Brilliant Pebbles than you even were planning to provide in your FY 90

request of $4.6 billion. What justifies this reallocation, and, why are these resources available from other SDI efforts in FY 90?

Answer: **We feel the potential for BP warrants the reallocation. This level of funding allows the program to proceed rapidly per the President's direction. Our internal and external reviews support the technical soundness of the program.**

BRILLIANT PEBBLES ISSUES

The Defense Science Board (DSB) concluded that Brilliant Pebbles should not replace the Space Based Interceptor in the Phase One Strategic Defense System at this time for several reasons. Chief among these reasons are that the Brilliant Pebbles design is neither complete nor stable, and that its adoption now would prematurely freeze its technology development.

QUESTION: General, despite the recommendation from the DSB, why have you essentially decided to place your primary focus on developing and adopting the Brilliant Pebbles system and architecture, and to drastically curtail your efforts on the alternative Space-Based Interceptor?

ANSWER: Funding for the Space-Based Interceptor technology is currently planned for FY 90, 91, and 92. The Brilliant Pebbles is making maximum use of the technologies developed under the Space-Based Interceptor program with no duplication of effort.

Brilliant Pebbles has replaced SBI in the planned architecture. The potential for Brilliant Pebbles, which was commented on favorably by the DSB, led to this change. This change was also supported by a Space-Based Architecture Study conducted by SDIO. Its capability offers the potential for autonomous operation leading to greater operational flexibility, enhanced survivability, less dependence on other elements of the Strategic Defense System, and the opportunity for significantly lower cost.

The Defense Science Board recommended that the development of the Brilliant Pebble concept be continued along with the evaluation of the full impact of Brilliant Pebbles concepts and approach on other elements of the ballistic missile defense. The Defense Science Board (DSB) also found "no fundamental flaws identified in the Brilliant Pebbles Concept."

QUESTION: Is Brilliant Pebbles a "high, medium, or low" risk program in terms of cost, schedule, and technology?

ANSWER: Inherent risk in a weapon system Research and Development program is a function of the design, testing, production, and management of that weapon system. Careful design, comprehensive testing, early production and manufacturing engineering, coupled with management decisions based on assessments of risk in these areas leads to a low risk program. To address the issue of risk in the Brilliant Pebble program, we consider the state-of-the-art of the scientific, technological and manufacturing base available to support the realization of the promise of the Brilliant Pebbles system, a small satellite. Satellites as well as missile systems include much near-term technology that is available to Brilliant Pebbles.

Based upon these criteria the Brilliant Pebbles has moderate inherent risk. Risk mitigation is being accomplished through a number of means. First the design is guided by the philosophy of making maximum use of off-the-shelf technology. The baseline Brilliant Pebbles design, which requires no advanced technology development, will be augmented by the Concept Definition contractors designs in the near future, further reducing already moderate technical risk. In addition, the Concept Definition contractors will focus their efforts on the production and manufacturing of the Brilliant Pebbles design. This early emphasis on production and manufacturing will reduce risk in an area that plagues many weapon system development programs. The Brilliant Pebbles Program also has a comprehensive testing program in place, comprised of ground and flight tests which are designed to examine all critical technical issues related to the Brilliant Pebbles. All of these efforts coupled with the streamlined management of the SDIO Brilliant Pebbles Task Force will lead to a reduced risk program. This, in no way have be "frozen" Brilliant Pebbles technology development.

QUESTION: What components of the Brilliant Pebbles System truly are "off-the-shelf" today? Which ones require significant technology development to reach their required performance and cost standards?

ANSWER: The current baseline design of the Brilliant Pebbles is comprised of near-term technology with no subsystems requiring extensive technology development. This is a result of one of the basic philosophies which guides the development of the Brilliant Pebbles; make it "simple and cheap". As a result, there is an inherent desire for "off-the-shelf" technology, however, technology which is not currently "off-the-shelf" will be incorporated into the Brilliant Pebbles design if it can be shown to make the Brilliant Pebbles simpler and cheaper while maintaining schedule and performance.

While it is true that none of the subsystems for the current design require extensive technology development, some are more mature than others. The following is a characterization of the current status of each Brilliant Pebbles Subsystem.

Subsystems for which technology is ready to go "as is": Ultra-Violet/Visible Camera, Avionics, and Thermal Management.

Subsystems which are in the qualifying testing stage: Inertial Measurement Unit, Interceptor Power, Propulsion, Survivability, and the Radio Frequency Communication.

Subsystems which require repackaging of the technology but whose designs are complete: [Deleted]

Subsystems which are brass boarded: [Deleted]

Subsystems which require redesign with existing components: Low-Rate Attitude Control System.

Subsystems which must be created from existing technology: None.

Subsystems which require advanced technology development: None.

QUESTION: The DSB report on Brilliant Pebbles recommended that more attention be paid to countermeasures and, in particular, that Red Team efforts be augmented and continued through the exploratory period on the system. How, specifically, is the SDI program responding to this recommendation?

ANSWER: Two Red/Blue Team exercise series have been completed, which address Brilliant Pebbles. The Red/Blue analysis is of continuing benefit to the system development process. It provides an ongoing opportunity to rethink the design and concepts to avoid the pitfalls of planning a system that is fragile to countermeasures, force structuring, or employment strategies. Consistent with the DSB recommendations, as well as recommendations from other review panels, the red/blue countermasure analysis effort is continuing.

QUESTION: SDI has done its own Brilliant Pebbles countermeasures study. What specific countermeasures did it examine, and which did the DSB examine? In each case, what specific deficiencies were found in Brilliant Pebbles, and how are they being addressed?

ANSWER: The countermeasure concepts suggested by the DSB and other review groups have been provided as input to the red/blue countermeasure group. Countermeasures determined to be potentially stressing to the defense system were then addressed in detail. Other suggested countermeasures have been evaluated and dismissed by the Red Team as unlikely or ineffective.

Countermeasure concepts investigated by the Red/Blue Team include:

[Deleted]

In each case, defense effectiveness was regained with either small modifications to the Brilliant Pebbles constellation or the addition of Brilliant Pebbles to the system. These changes to the defensive Brilliant Pebbles were found to be effective in recovering performance and were much less costly than the expected Soviet countermeasures.

GENERAL

QUESTION: General Monahan, it is generally accepted that Phase I Strategic Defenses will not be effective for long unless augmented by more futuristic weapons, such as lasers. Thus the Pentagon previously agreed that a Phase I deployment decision should not be made until the feasibility of the follow-on Phase II systems could be determined.

SDI's budget allocations emphasized earlier deployment of Phase I systems and delayed R&D needed to determine the feasibility of follow-on systems. Why shouldn't SDI reallocate its budget programs to maintain the acknowledged, essential linkage between Phase I and Phase II decisions?

ANSWER: So that any deployed defenses will remain effective over time, the SDI program includes not only development of the mature defensive technologies such as kinetic energy weapons, that can serve as the basis for a first-generation defense, but development of advanced technologies such as high-energy lasers as well.

The fact that we continue to try to retain a balance between Phase I and the advanced concepts is ample evidence of our commitment to follow-on systems.

Question: General Monahan, how would you restructure the SDI program to place it squarely in the category of a research program, instead of a program directed toward deployment? What would be the major impacts of such a restructuring on the major Phase I and Phase II systems?

Answer: The SDI program has been structured to support the President's guidance on the conduct of the program. We have no intention of altering our plans - unless the guidance issued by the President is revised.

SDI and the ABM Treaty

Question: Secretary Wolfowitz, the SDI program is scheduled to breach the narrow interpretation of the ABM Treaty in FY 95. Will it remain the Administration's policy to conduct all SDI activities in compliance with the narrow interpretation of the ABM Treaty at least until FY95?

Answer: The Administration wishes to avoid a divisive, theoretical debate on the interpretation of the ABM Treaty. Rather, we wish to identify and implement the best technical program for SDI consistent with US obligations under the ABM Treaty. If that program raises questions with regard to the so-called broad interpretation of the Treaty, we will address those questions with Congress at that time and on the basis of the merits of the specific program we have proposed.

Question: The first SDI system to raise major ABM Treaty issues -- the Boost Surveillance and Tracking System (BSTS) satellite -- enters full scale development in FY1991. General Monahan, how specifically does the Pentagon intend to insure that BSTS hardware and software comply in a verifiable manner with the narrow interpretation of the ABM Treaty during the system's full scale development and initial launches?

Answer: A non-radar sensor satellite deployed in space solely for tactical warning/ attack assessment (TW/AA) and other non-ABM purposes, with sensor and data processing capabilities on a scale now being considered for space-based TW/AA, would be consistent with the ABM Treaty if certain conditions are complied with. Such a satellite would not be constructed and deployed for an ABM role and would not be tested in an ABM mode. The BSTS has been reviewed and guidance issued for the construction and deployment of Treaty compliant satellites for the TW/AA mission to be launched beginning in the mid 1990s. The conditions that insure BSTS compliance are outlined in the guidance and will be specified more completely in a future compliance certification, which will be developed when the details of the satellite design and the plans for on-orbit operation are more complete.

Question: General, what other major SDI systems could breach the narrow interpretation of the ABM Treaty before FY 95 unless development activities are structured in a compliant manner? How does DoD intend to insure these systems remain compliant?

Answer: All SDI field tests must be approved for ABM Treaty compliance through the DoD compliance review process. Each test or series of tests is examined on a case-by-case basis to consider the specific test plans and the application of the ABM Treaty to those plans. It is not possible to prejudge the outcome of those compliance evaluations.

DoD has in place an effective compliance process (established in 1972, after the signing of the SALT I agreements) under which key offices in DoD are responsible for overseeing SDI compliance with all US arms control commitments. Specific responsibilities are assigned by DoD Directive 5100.70, 9 January 1973, Implementation of SAL Agreements. The Under Secretary of Defense for Acquisition, USD(A), ensures that all DoD programs are in compliance with US strategic arms control obligations. In consultation with the DoD General Counsel, the Office of the Assistant Secretary of Defense for International Security Policy, and the Joint Staff, the USD(A) applies the provisions of the agreements, as appropriate. The Service secretaries, the Chairman of the Joint Chiefs of Staff, and agency directors ensure the internal compliance of their respective organizations.

Question: What are the ABM Treaty compliance issues with "Brilliant Pebbles?"

Answer: Each SDI test or series of tests is examined on a case-by-case basis toconsider the specific test plans and the application of the ABM Treaty to those plans. The test program for Brilliant Pebbles is being evaluated for compliance as it is being defined. To date Brilliant Pebbles ground-based testing has been approved through flight number 8. The plans for subsequent tests are currently being evaluated for compliance purposes.

Question: The Fiscal 1990 Defense Authorization Act bans use of FY 90 and prior year funds for acquisition of any materials or equipment -- including long lead materials, components, and piece parts -- needed to develop or test ABM systems or components exceeding the Treaty's narrow interpretation. General, if this provision is included in future authorization acts, when would SDI currently-proposed activities come into conflict with it?

Answer: The FY90 Defense Authorization Act requires that DoD may not obligate or expend funds (a) for the development or testing of any antiballistic missile system or component, except for development and testing consistent with the development and testing described in the 1989 SDIO Report to Congress; or (b) for the acquisition of any material or equipment (including any long lead materials, components, piece parts, test equipment, or any modified space launch vehicle) required or to be used for the development or testing of antiballistic missile systems or components, except for material or equipment required for development or testing consistent with the development and testing described in the 1989 SDIO Report. This limitation does not apply to funds transferred to or for the use of SDI for FY90 if the transfer is made in accordance with the section of the Act dealing with transfer authority, also known as reprogramming authority. There are no approved test plans in SDI to which that legislation would apply.

It is important to understand, however, that ambiguities in the legislation in question has had a negative effect on SDI. As testing programs are developed, ordinary long lead items to support the tests, such as rocket boosters, must be purchased years in advance. These purchases may need to take place when the payload design is conceptual and the testing parameters are not well defined; this is too early in a program for appropriate treaty compliance certification. Thus, purchase of material or equipment which do not affect treaty compliance determinations is delayed until the design and testing parameters are better defined, or treaty compliance review must be conducted on conceptual tests. This causes unnecessary delays in testing and increases costs artificially.

The original version of that legislation (FY88 Defense Authorization Act) was enacted during a debate about the application of the ABM Treaty to "ABM systems based on other physical principles." Some in Congress were concerned that tests in SDI that would take advantage of the so-called broad interpretation of the Treaty might occur with little or no notice so that the Congress would not be afforded the opportunity to debate the merits of the Treaty interpretation. It should be possible to work out a different arrangement on this subject that would not have such negative effects on SDI while still dealing with the underlying congressional concern.

QUESTION: Secretary Wolfowitz, how far apart are the positions of the U.S. and the Soviet Union with respect to renegotiating the limits of the ABM Treaty? What are the specific, major differences, and what are their implications for the pace and composition of the SDI program?

ANSWER: [Deleted]

Cost Issues

Question: General Monahan, the latest official acquisition cost for Phase I strategic defenses is $55 billion in constant, FY88 dollars and $68.7 billion in inflated dollars we actually will spend. The last official estimate was about $69 billion in constant dollars and about $89 billion in current dollars.

What specific changes in the SDI program, its systems and deployment architecture account for this latest reduction?

Answer: The difference between the former architecture ($69.1B - FY88 acquisition cost) and the current architecture ($55.3B - FY88 acquisition cost) are the addition of Brilliant Pebbles (BP), the elimination of the Space Based Interceptor (SBI), a modification to the Space Surveillance and Tracking System (SSTS), an increase in the quantity of GSTS, the elimination of performance reserve due to the robust character of BP deployment, and a reduction in associated launch costs.

Question: General Monahan, what are the annual operations and support costs, and total life cycle costs, of the Phase I Strategic defenses, in both current and constant dollars?

Answer: Based on our most recent FY92-97 program planning, the requested data for the current Phase I architecture is as follows:

	$B-FY88	$B-TY
Acquisition costs	55.35	68.22
Total life cycle costs (10 years operation)	81.77	106.55
Total annual operations support cost*	2.64	3.83
Equivalent annual O&S cost**	1.99	2.93

*This value represents the total O&S cost (including the "start-up wedge") divided by 10.

**This value is the average O&S cost for the ten years of full operation only.

Question: General, Pentagon cost estimates rarely have come to pass. Do you have "high, medium, or low" confidence in this latest SDI estimate?

Answer: The Defense Acquisition Board (DAB) reviewed the Brilliant Pebbles program on June 15, 1990 and approved proceeding with the program, which included a Phase I acquisition cost of $55B. I am confident that the current estimate reflects the best information available at this time.

Question: General Monahan, does the Defense Secretary's independent Cost Analysis Improvement Group (CAIG) agree with this latest estimate? Were there any disagreements between your organization and the CAIG regarding the estimate, and was each resolved?

Answer: In October, 1989, the CAIG addressed Brilliant Pebbles, the Space Surveillance and Tracking System, and Launch. The CAIG did not do an independent cost estimate but reviewed the SDIO and Service estimates. As a result of their review, questions were raised. These questions regarding Army and Air Force cost positions, methodology, schedules, and technology requirements were addressed prior to the Defense Acquisition Board's approval of the current program in June.

Question: General Monahan, much of the decrease in the cost estimate is attributable to adoption of the BP system and architecture. Why is this a valid basis for a cost estimate since the DSB concluded the BP design was neither complete nor stable, nor has a well-defined acquisition strategy?

Answer: Cost analysis organizes historical data so as to estimate the cost of future systems based on preliminary system characteristics. Regarding BP, the technical information available (the BP Cost Analysis Requirements Documents) provided a more valid basis for a cost estimate than did the technical information available for the earlier Space Based Interceptor, which BP replaced. For BP we worked with component characteristics (e.g. reaction wheels, clocks, etc.) whereas SBI specified only higher level subsystem characteristics (e.g. power, thermal, attitude control) for their life jacket spacecraft. The move to BP should improve the basis of SDS cost estimating.

Question: General Monahan, how many of the technologies -- including manufacturing technologies -- required to achieve the latest cost estimate already exist? How many require further significant research and development themselves?

Answer: All of the technologies exist; however, many of them require adaptation or scaling to meet the specific needs of SDS elements. SDIO is aggressively working and improving manufacturing technology initiatives to resolve challenges in this area.

SDI's FISCAL 1991 BUDGET REQUEST

QUESTION: General Monahan, SDI's Fiscal 1991 Budget request totals $4.46 billion for DoD and another $220 million for the Energy Department. The DoD request is almost $900 million above last year's appropriated total of $3.57 billion. What justifies such large growth in SDI this year when most other parts of the DoD budget have been severely constrained? Is this request realistic in view of likely budget constraints?

ANSWER: The SDI program is broad-based and has achieved tremendous technical progress in all areas. The program is now poised to conclude the demonstration and validation of a host of technologies and systems which would enable the deployment of strategic defenses.

At the same time, the program is exploring improvements which will increase the effectiveness and lower costs of initial defenses, and is conducting research into advanced technologies for potential follow-on deployments.

This broad-based and balanced approach to SDI research and development is sound and needs to be continued. But the program must also be allowed to progress at the pace of technological advancement so as to realize the benefit of promising concepts and the orderly abandonment of less promising approaches (e.g., no premature downselects between competing technologies). Flexibility is needed and that requires adequate funding.

QUESTION: General Monahan, what are the principal programmatic reasons for such large growth, especially in terms of major systems research and development?

ANSWER: The FY 91 budget provides for necessary funding to support Phase I (BP, GBR, GSTS, SSTS, GBJ, CC/SOIF) and Follow-on (Space laser, NPB, HEDI, interceptor components) programs. This support will capitalize on our previous technical accomplishments, e.g. BP first intercept, 60mm hypervelocity gun demonstration, IR measurement of plumes and earth clutter from space, ERIS discrimination and intercept, Arrow first flight test.

QUESTION: General, your statement says SDI's ability to maintain its current pace to decide to deploy in 1993, and to begin deployment in 1997, clearly depends on the FY 91 and future funding provided by Congress.

Very few observers on Capitol Hill expect SDI will receive more in FY 91 than was appropriated for FY 90. What would be the schedule and programmatic impacts of a reduction in your budget request to the FY 90 level of $3.57 billion?

ANSWER: If FY 1991 funding was held to FY 1990 levels, we would have reduced the flexibility to maintain program balance and scope while also pursuing those programs which have matured and are ready for the next stage of development (such as BSTS), (at a technology-limited pace) those which hold promise for lower cost (such as Brilliant Pebbles), and those which may provide revolutionary capability (such as directed energy weapons).

The choice will be between reducing program scope and program stagnation. This translates into premature abandonment of technologies, lost investments, layoff and loss of skilled scientists and engineers, and a higher risk program; or incurring program stretch out costs, frustration of innovation and initiative, and possible additional delays in deployment. Both alternatives entail unacceptable risks and costs.

SDI progress has been impressive and the technology is at hand. But continued and increased investment in this program is essential if it is to bear fruit. Applying the brakes at this stage is both senseless and wasteful.

If the FY 1991 budget request is reduced, the determination of the schedule and programmatic impacts will require extensive study and will likely be influenced by work and studies that won't be completed until late summer.

QUESTION SUBMITTED BY SENATOR BYRD

STRATEGIC DEFENSE INITIATIVE

QUESTION: Do you believe that the Soviet Union will deploy any type of new Antiballistic Missile (ABM) defense system during this decade?

ANSWER: [Deleted]

QUESTIONS SUBMITTED BY SENATOR BUMPERS

BRILLIANT PEBBLES LAUNCH TIMING

General Abrahamson told me in a letter a few years ago that the Space-Based Interceptors would need to begin firing 50-60 seconds after the Soviets launched their first wave of ICBMS in order for the interceptors to have enough time to reach the ICBMs in their boost phase.

QUESTION: Is this true for Brilliant Pebbles, too?

ANSWER: Yes, kinetic impact systems require time to fly to the missiles. Our estimates of performance account for time to detect, track, and report missile launches and for human-in-the-loop decisions. [Deleted] Simulations have shown that Brilliant Pebble boost/post-boost phase engagement performance still could be maintained to a significant level if human-in-the-loop decision is received [Deleted]

BRILLIANT PEBBLES AND SS-25

QUESTION: [Deleted]

ANSWER: Kinetic impact systems require time to fly to the missiles. As missile burn times are reduced, less time is available for intercepts in the boost phase. For this reason, the Strategic Defense System is a multi-tiered system; as threats evolve, different tiers of the Strategic Defense System will have greater roles.

[Deleted]

This modification could be done without requiring any additional technology or weight beyond that of the current baseline Brilliant Pebbles.

MAN-IN-THE-LOOP

QUESTION: How do you assure a "man-in-the-loop", as Congress mandated in 1986, with Brilliant Pebbles? Given the need to begin firing right away, will there be time for a senior General to make this decision at all times, or will it be left to a watch officer?

ANSWER: Human in-the-loop is the basic premise of the Brilliant Pebble command and control structure. For an intercept to occur, the human in-the-loop must provide two key controls: (1) weapon enablement and (2) weapon release authority.

In tension and crisis situations, the decision maker may face decisions to elevate the alert level of SDS elements. Such steps would lead to further decisions possibly concerning enablement of the weapon. The times for such decisions are expected to be measured in hours to days and should permit full notification of higher authorities and other unified and specified commands.

With intelligence warning of imminent attack or with only real-time tactical warning of a surprise attack, the decision maker must decide to enable capabilities not previously enabled, release countermeasure actions, and grant weapons release authority.

[Deleted]

The high-level command and control structure for elements of the SDS Phase I, including Brilliant Pebbles, is being planned in coordination with U.S. Space Command (USSPACECOM).

Admiral Crowe on SDI

Question: Admiral Crowe told The Washington Post a few months ago that he thought SDI should be funded at about $3 billion per year, though you are asking for $4.5 billion. Why do you believe that this recent Chairman of the Joint Chiefs of Staff is wrong?

Answer: I do not know what assumptions formed the basis for Admiral Crowe's reported belief that SDI should be funded at about $3 billion per year. However, the President, the Secretary of Defense, and the Chairman of the Joint Chiefs of Staff have endorsed our FY 1991 budget request of $4.5 billion.

OVERCOMING SDI

In 1986, the French Defense Ministry said that they could overcome a Soviet SDI. Now I understand that General John Robinson of the JCS staff told the House Armed Services Committee that the Soviets "are capable of developing new technologies to overcome our capabilities" in SDI. He indicated this would be through more ICBMS, Decoys, etc.

QUESTION: How do you respond to these assertions of the French, and our own JCS?

ANSWER: Without knowing the assumptions of Soviet capabilities used by the French it is impossible to respond in detail to their assertion.

You should be aware that General Robinson was concerned that his comments may have been misinterpreted, and stated that his support for investment in ballistic missile defenses is based on the assessment that the Soviets could not easily counter a strategic missile defense system.

The Soviets might respond to the U.S. SDS deployment in a number of ways ranging from doing nothing; to enhancing Soviet ICBM/SLBM performance in an attempt to deceive or evade U.S. defensive interceptors; to missile proliferation. Another response would be for the Soviets to enhance their own BMD capabilities. Regardless of the Soviet response, SDIO has commissioned various "Red-Blue Teams" and other review groups to investigate potential countermeasures the Soviet Union could use to defeat SDS.

TRIDENT II AND SDI

Last year the Navy told me that they felt confident that their Trident II missile could overcome all but the most robust Soviet SDI with only minor changes. Even a robust SDI would not require a totally new missile, though it would require major modifications to existing Trident IIs.

QUESTION: Why wouldn't the same be true for the Soviets in countering a U.S. SDI?

ANSWER: We anticipate the Soviets could undertake a variety of measures designed to undermine the effectiveness of a Phase One SDS. Our Red-Blue interchanges are organized to identify these various potential countermeasures, their effectiveness in defeating a Phase One SDS, and possible U.S. countermeasures to ensure U.S. Phase One SDS performance. Our analyses to date have yet to identify a Soviet offensive missile countermeasure that would defeat a U.S. SDS. We are continuing our investigation of various countermeasures.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

BOOST SURVEILLANCE AND TRACKING SYSTEM

QUESTION: Without SDI, do you need the Boost Surveillance and Tracking System as presently configured to fulfill the requirements of the Air Force for threat warning and attack assessment?

ANSWER: The Boost Surveillance and Tracking System (BSTS) is presently configured to fulfill the JROC-approved requirements for tactical warning and attack assessment (TW/AA), as well as several other non-ballistic missile defense (non-BMD) missions. In addition, BSTS is geared to protect its capability to grow into a BMD supporting element. Fielding of such a BMD support capability is predicated upon a national decision on deployment of a Strategic Defense System. Fulfillment of the TW/AA and other non-BMD requirements does not require the deployment of this BMD upgrade. However, fulfillment of these non-BMD missions does require a follow-on for the present Defense Support Program (DSP). In the words of the Secretary of Defense: "The BSTS program was created prior to the Strategic Defense Initiative to resolve long standing deficiencies in TW/AA capabilities. We need a replacement for the current system; for survivability, dissemination of tactical information direct to users, assured worldwide coverage, and faster reporting time. The replacement will also avoid the political liabilities of overseas ground stations and have lower operating costs."

QUESTION: Would: (1) A down-scaled BSTS [Deleted] (2) An upgraded Defense Support Program, or (3) The current Defense Support Program suffice to fulfill the threat warning and attack assessment mission?

ANSWER: The current Defense Support Program (DSP) clearly does not suffice to fulfill the tactical warning and attack assessment (TW/AA) mission. We need a replacement for the current system; for survivability, dissemination of tactical information direct to users, assured worldwide coverage, and faster reporting time. The replacement will also avoid the political liabilities of overseas ground stations and have lower operating costs. These mission requirements are specified by U.S. CINCSPACE, validated by the Joint Requirements Oversight Council, and detailed in the U.S. CINCSPACE approved System Operational Requirements Document. A BSTS, without any features uniquely required for ballistic missile defense.

[Deleted] has been designed to perform the TW/AA mission. However, it is not clear whether an upgraded DSP could satisfy these requirements. Potential upgrades to the DSP have not had the rigorous design review and government scrutiny that the competing BSTS designs have had. It is evident that the upgrades that would be required to approach satisfying this mission are not insignificant. Also, you would have a basic system with a very old technology limited design base. Cost and risks as well are likely to be comparable to the BSTS TW/AA development. In any case, in the upcoming free and open competition for Full Stale Development of BSTS, an upgraded DSP could be proposed and would be fairly evaluated against these requirements.

BRILLIANT PEBBLES

The SDIO reported to have overcome the problem of multiple pebbles keying on the same target with software fixes.

QUESTION: What were those fixes?

ANSWER: A Brilliant Pebble will be able to survey approaching targets, select probable intercepts, deconflict with adjacent weapons and once the weapon is enabled and release authority is provided, the Brilliant Pebble will proceed to its selected target. The concern expressed above was that many Brilliant Pebbles would potentially select the same target. This issue has been resolved through development of new battle management options.

[Deleted]

This minimizes multiple pebbles from targeting the same missile.

My understanding is that the cost of Brilliant Pebbles is predicated on each pebble weighing 100 lbs. and costing $1.2 million.

QUESTION: How close are we to those goals at this time?

ANSWER: The Brilliant Pebbles program is just entering the Concept Definition phase with six teams from industry. The goal of this phase is to stimulate industry to be innovative in their design and manufacturing applications. Improvements in the current design are anticipated to be carried into the pre-FSD phase.

The 30 month long pre-FSD phase includes the development and test of hardware for evaluation before making an FSD decision. The two most successful designs submitted during the CD phase will be taken through Pre-FSD. The flexibility exists to incorporate attractive elements of unsuccessful designs into this phase.

The current Brilliant Pebble, designed by Lawrence Livermore National Laboratory is estimated to be near the stated goals.

SUBCOMMITTEE RECESS

Senator INOUYE. We will stand in recess until next Tuesday, May 8, at 10 a.m. in room SD-192. At that time, the subcommittee will meet in open session to discuss tactical air power programs and issues with witnesses from the Air Force, Navy, and Marine Corps.

General, I thank you very much.

[Whereupon, at 12:52 p.m., Thursday, May 3, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 1991

THURSDAY, JUNE 7, 1990

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:01 a.m., in room SD-124, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye, DeConcini, Bumpers, Stevens, D'Amato, and Specter.

DEPARTMENT OF DEFENSE

U.S. EUROPEAN COMMAND

STATEMENT OF GEN. JOHN R. GALVIN, USA, COMMANDER IN CHIEF, U.S. EUROPEAN COMMAND

OPENING REMARKS OF SENATOR INOUYE

Senator INOUYE. This morning, we are pleased to welcome General John Galvin, Commander in Chief, U.S. European Command.

In February 1989, when General Galvin last testified before the subcommittee, President Gorbachev already had proposed major force reductions, and, at that time, we noted that the U.S. military presence in NATO was undergoing the most comprehensive review since the creation of the alliance in 1949.

However, last year none of us here or anyone in the intelligence community could have forecast the extraordinary events that are now occurring in Eastern Europe. I think it is important to realize that decisions made today to reduce our Armed Forces could have repercussions for many years to come.

General, I agree fully with your statement in that sound defense reductions must be consistent with commensurate Soviet actions.

I am concerned that reductions in U.S. forces may be moving too rapidly. Hopefully, NATO will reach agreement with the Warsaw Pact on the conventional forces in Europe; but that has yet to be signed or ratified.

Unfortunately, many leaders in both Houses of Congress and also in the administration are rushing forward to account for savings in anticipation of such an agreement. Yesterday, we spent much time on this matter in the so-called budget summit.

I look upon this period as a period of dynamic change, but also of instability. So, I would believe that a prudent course of action would be to keep our defenses strong.

We have held 19 hearings since February of this year, and we have 2 others remaining. The last will be the Secretary of Defense next Tuesday. You are the one we consider most important.

So, with that, I would like to welcome you, sir. We look forward to your testimony.

We have received your statement, as you know, and, if you wish to summarize that, please proceed, sir.

General GALVIN. Thank you, Mr. Chairman.

I appreciate your kind words, also.

STATEMENT HIGHLIGHTED

As you said, the CFE Treaty is not yet signed. But if we assume that all the good things that we can think of with reference to Europe and the Soviet Union take place—in other words, if the INF Treaty, which is halfway completed now in terms of the extraction of the weapons—if that is completed, if the chemical weapons come out of Europe this year—and it is my responsibility to get them out, and I think I can do it; however, safety is going to be first on that, so I don't want to guarantee it precisely by the end of the year; but I think there is a good 99-percent chance that I'll do that—if CFE is signed, and then, if we go into another CFE, and if SNF is automatically kicked off by the fact that the Conventional Treaty in Vienna is signed, and we go into a nuclear treaty in Europe, and there are reductions there, and if START works out, suppose all of that does happen, how long would it take for that to be accomplished? I think that looking at it in that way gives you an idea of the timeframe. There are so many assumptions that float around that all of this is somehow done. First of all, it is going to be hard to do. Second, if it is done, it is going to take a lot of time. Just to have the Soviets destroy 90,000 pieces of equipment will take time.

PEACE DIVIDEND

Also, I would like to mention right up front that I do feel if we can get all that, which I think we should all welcome, if we can get it the right way, then there will be a peace dividend. But I think we need to really seriously look at this question of how does such a peace dividend occur.

Obviously, if you cut the size of the forces, you cut the size of the support necessary and you, therefore, cut the funding. But that is over the long run.

In the short run, it takes money and funding to cut the size of the forces. You have to close bases, move people, destroy equipment, set up verification, follow up on treaties—a number of actions which we are not doing now which we will have to do then. And we will have to keep, even if it is smaller, a modern force, and I don't doubt at all that the curve of inflation will continue to go up.

So I think all of that has to be mixed into it in anticipation of what is going to happen, in terms of funding, even if we do get all the things that we hope for.

But I think if we do get a matrix of treaties, then we have accomplished a lot. But we have not, just by the matrix of treaties, assured some kind of security for ourselves because we need some organization to overwatch the matrix.

What the matrix gives you is not peace; it gives you accountability for violation. It makes any kind of a move away from peace obvious to the world and, under international law, there is a potential for action. But then we have to think how can we use those treaties in that way.

That would tell you that you have to have an organization that can be a crisis manager, a decisionmaker, something that can publicize problems that happen in terms of violations and get consensus. I think that is NATO. I don't see how CSCE could do it.

CONFERENCE ON SECURITY AND COOPERATION IN EUROPE

I read this morning in the paper that at the meeting of CSCE, the Conference on Security and Cooperation in Europe, 35 nations met around a table that was almost as big as a football field in a hall that is like a hangar. I think that is a good organization for consensus building and for communication and for insuring that everybody feels a part of the action. Even adversaries can meet there. But I don't see how that could be a decisionmaking body, a crisis-managing body.

I submitted 1,700 recommendations to NATO this year as SACEUR, and there was action taken on all of them. Some of the action I didn't particularly like; but there was action taken. Decisions were made.

I don't see submitting that to a football field-sized table to try to get some action.

So I think we should carefully look at how you follow up on a matrix of treaties, and I think you have to do that with an organization. It has to have a strategy, and it has to have forces available. Smaller than now, a lot smaller than now, but good forces, and they have to be resourced.

So, when I look at that, I say that that is not a bad vision of the future. I think we're on a good track. I don't think we have to feel that we ought to wear a hair shirt about where we are going and about a lack of vision. We do not lack vision. That is a pretty good approach.

POST-CFE THREAT

But there still is a threat. And the word "threat" turns out to be a bad word. I personally think we ought not to use the word "threat" as much as we do now because as words tend to do with their connotations, it applies to another time. It applies to this massive Soviet threat sitting right on the border of Western Europe.

That's not as true now as it was then, by any means. The Warsaw Pact is not the Warsaw Pact of before, and it would be interesting to be able to see what is happening at the Warsaw Pact meetings going on right now.

But the threat would still exist after CFE, and everything I say in this opener would be post-CFE, and the threat would still be about 48 Soviet ground divisions and 4 airborne divisions that could move in the area west of the Urals. We, post-CFE, would have about 18 divisions located in Western Europe, basically where our defense is now. It would drop from 22 divisions to about 18.

The Soviets would be at 52 divisions. So, it would be a great deal more difficult for the Soviets to execute an attack, more difficult than it has been over the past 30 years, but definitely not impossible and definitely still constitutes a problem for us.

I would like to say a couple of things about the areas of concern that I feel are most important to me. I am not going to say a lot about them, but I would hope that we would have some conversation about them this morning.

QUALITY OF LIFE

The first one—and I put it first and will continue to put it first—especially in this time of tremendous transition, is people. Quality of life at the duty station and at home is really important to them and important to me—place of duty, housing, barracks, health care, child development. Right now, in Europe, I have 3,700 single parents. Even with the help that this committee and the Congress has given me on the question of child development, right at this moment, I still have over 11,000 children who need child development but who are not in a child development program.

There are the recreation, morale, and welfare problems. And readiness and the training centers that I am trying to open up and run, because I realize that training in the countryside is not going to be the norm too much longer.

[Deleted.] It is not a list as long as your arm. It is a list that I think is an absolute minimum. I want to say to the committee here today that yes, we will be closing bases in Europe.

But I think I am smart enough to be able not to put any construction money into places that are going to close. If anything changes on that, and there has to be a certain amount of flexibility, if anything changes on that, I will make sure that money does not go to places that are closing out.

CROTONE

I would like to mention Crotone because I think that will come up. Senator Sasser had sent me a letter on that.

Crotone is well along now. There will be groundbreaking next month. The bids were submitted. The bidders came back with their estimates, and the estimates were lower than we expected. They were not higher, but lower—in fact, substantially lower. There are contracts ready to go out now. There will probably be an award of a contract within the next 30 days.

I can think of nothing more important to me, even though a lot of other bases are closing.

But, as we draw down over in Europe, we must do this in such a way that we keep a balanced deterrent there and I need an air wing in the Mediterranean, in the southern flank. The 401st is the only U.S. air wing that I have there which is comprised of 72 first-line fighters, F-16's.

[Deleted]

So I really do need that.

As I said last year and I would say again this year, my priority list is not as long as my arm; I have a short one. I have made some changes in it that I would like to discuss as we talk today.

[Deleted.]

So the list does not go on forever.

PREPARED STATEMENT

With that, sir, and the comment that I made about strategic reinforcement being very important to me, as I know it will come up here during the session, I would like, once again, to express my deep appreciation for being invited here again. I am ready for any questions the committee might have for me.

[The statement follows:]

STATEMENT OF GEN. JOHN R. GALVIN

Mr. Chairman and members of the Committee, thank you for the opportunity to testify and to provide a military perspective on the situation in Europe as you study the requirements for a prudent national defense program. As Commander in Chief of the U.S. European Command, I am responsible for U.S. military activities in Europe and most of Africa. I also serve as the Supreme Allied Commander, Europe, responsible to the North Atlantic Treaty Organization.

ENVIRONMENT

These are unprecedented times in Europe. President Gorbachev long ago abandoned the Brezhnev Doctrine and ideology as a basis of foreign policy. Governments and political systems are changing rapidly. There are elections in Eastern Europe. Germany has virtually unified. At the same time, grave economic conditions and severe political unrest characterize the Soviet Union, and threaten the emerging democracies in Eastern Europe.

The changes in Eastern Europe and the Soviet Union have created opportunity as well as risk. While most of the change appears irreversible, it is unclear where it will lead. Our challenge, in my view, is to manage our response to the many changes we confront in such a way as to preserve and enhance security for both the East and the West. We must sustain the clear movement toward the adoption of democratic values and institutions in Eastern Europe. The period of transition represents our greatest challenge.

The perception of a rapidly declining threat has given rise to expectations of a significant "peace dividend." It is tempting, but nonetheless wrong, to assume the possible post-CFE military situation has already occurred. The Soviet Union still has the strongest army and air force in the world. They have more than 100 divisions that can be aimed toward the West. They have produced 9,825 combat aircraft and 28,500 tanks in the past ten years. While tank production halved last year to 1,700, that is still far greater than we produce in the West.

This having been said, there are several promising changes in the security situation that deserve highlighting. The political changes addressed earlier lead me to conclude that the Warsaw Pact has virtually disintegrated and the Soviet Union probably will remove its military forces from the Eastern European countries. Soviet unilateral force reductions in Hungary, Czechoslovakia and Poland are occurring generally as announced. However, the most combat-ready forces—the Western Group of Forces—apparently will remain in East Germany for some years to come.

The post-CFE situation, meaning the results of an agreement on the reduced size of Conventional Forces in Europe along the lines proposed by the West, would greatly enhance our security and the security of the Soviet Union. The goal of the CFE agreement is to get the conventional military strength of the Soviets down to parity with the West. At present these forces are two to three times bigger. I should emphasize, however, that the residual Soviet conventional force could be substantial—

alone it could be roughly as big as all the forces of the Western European nations combined. The Soviets will continue to be well-equipped, modern, and accompanied by a powerful strategic and theater nuclear force.

THE WAY AHEAD

Deterrence of war remains the ultimate goal for both the United States and NATO. I would recommend a four-part formula to attain this goal as we participate in the transition from the Cold War to a new security reality in Europe.

First, we need a matrix of ratified, irreversible, and enforceable arms control treaties. Arms control is, and ought to be, an integral part of strategy. With an effective arms control matrix, we have an opportunity to shape and monitor the forces we might have to face in combat. Only with arms control treaties can the Alliance come close to guaranteeing the rights of verification. The Intermediate Nuclear Force (INF) treaty and Stockholm Accords are already in place. Further agreements covering conventional forces in Europe (CFE), strategic nuclear weapons (START), short range nuclear forces (SNF), chemical weapons (CW), and a follow-on CFE treaty hold the best promise for the irreversible termination of the Cold War, reduction of the threat to Western Europe, and increased security for both the East and the West.

Second, the United States should continue to count on NATO as the vital structure for maintaining the security of the West. The Alliance can certainly assist in overwatching the implementation and verification of the arms control treaties. It must also continue to perform its traditional role—deterrence and defense—providing collective security for the West. NATO will also offer an excellent vehicle in an increased role as a forum for security matters. After a CFE treaty is implemented and conventional forces parity is reached in the zone from the Atlantic-to-the-Urals (ATTU), the only credible way for the West to insure deterrence is through an integrated military structure—to include U.S. units. Otherwise, if world events compelled the Soviet Union to attack, there would be a dozen relatively weak nations possibly going it alone, similar to what Hitler faced when he attacked the West in 1939. The Conference on Security and Cooperation in Europe (CSCE) process, the European Community (EC), and the Western European Union (WEU) are prominent institutions which enhance the process of consolidation, but NATO will remain preeminent in Western security and is essential as the Atlantic link.

The third element of the way ahead is to retain the appropriate military strength both through the transition period to post-CFE levels and afterward. We should not forget the role Western military preparedness played in providing peace in Europe for forty years. A credible defense will remain the ultimate guarantor of peace, prosperity, and freedom. Western strength is also a powerful inducement for the Soviets to continue to negotiate arms reductions. The final value of transitioning with strength is that we guard against the uncertainties associated with this historic period.

The fourth element is strategy—a common Western strategy defining our interests and how we plan to protect them. The current NATO strategy agreed by the 16 nations over 20 years ago—is being reviewed, and will likely change. For now it still serves our needs. Because the Alliance strategy is an expression of NATO's identity and purpose, it must capture the security concerns of the sixteen member nations. Therefore, the strategy review will be comprehensive and with the full and equal participation of all the nations.

Changes to the strategy will likely include a new threat assessment based on the evolving situation in the Soviet Union and Eastern Europe. Other changes might include the formal incorporation of arms control, implementation of lower levels for conventional and theater nuclear forces, and increased reliance on force generation and reinforcement. U.S. backing, especially through forces stationed in Europe, deployable reinforcements, and strategic nuclear weapons, are seen by Europeans as enduring components of any NATO strategy. Although the numbers of nuclear weapons can and should be reduced, nuclear deterrence will remain a fundamental element of the Alliance's defensive posture.

The notion of strength should not be taken to read business as usual. The CFE proposal to reduce Soviet stationed forces to 195,000, and U.S. stationed forces to 195,000 in the Central Zone and 30,000 in the rest of Europe—in addition to the cuts in weapons systems—plus the many program reductions and terminations proposed in the budget are evidence of responsiveness to the changing security environment in Europe. As the military forces of the Soviet Union get smaller and move eastward, we can decrease further the U.S. presence in Europe. We must, however, make such reductions in consonance with similar Soviet actions.

Recent intelligence analysis concludes that the warning time we can expect for a major Soviet attack into Western Europe has increased. It stands to reason that as the Soviets reduce their force structure, mobilization and deployment would be detectable and would take longer. However, warning time does not necessarily equate to decision time. U.S. response time, or the time required for us to mobilize and reinforce Europe, will remain a critical factor post-CFE. Anticipated changes in the military situation will not reduce our need for a credible rapid reinforcement capability. In order to maintain deterrence and enhance stability—before and after CFE—we must preclude future Soviet leaders from believing that they can win by deploying forces more rapidly than the West.

Should units be demobilized, air and sealift capabilities allowed to deteriorate, and readiness not be maintained, we would need additional response time to revitalize the force. In the post-CFE environment, it is possible that we may have some additional time to redeploy forces to Europe, but that may not overcome the inherent advantages the Soviets have in force deployment. In the Central Region, Soviet reinforcements will be 600 km from NATO territory; ours will be 6000 km and one ocean away.

RESOURCE REQUIREMENTS

Forward deployed forces and their families deserve an adequate environment in which to work and live. Generally, our approach to facilities in Europe for the past 40 years has been to scrimp and get by. We must continue to provide adequate working and living spaces to the same standards as our professionals enjoy in CONUS. My challenge as Commander-in-Chief is to ensure the limited funds appropriated for military construction in Europe are invested in those installations which we will continue to occupy. We are constantly reassessing renovation and construction plans to account for anticipated base closures in Europe.

Military construction is a critical part of all of our programs. The U.S. European command's MILCON request for fiscal year 1991 is the lowest since fiscal year 1982. It is the program that gives our troops decent housing, barracks, schools, and health care; allows them to maintain and protect the modern equipment that our nation has procured and fielded; and provides a professional workplace for our soldiers, sailors, airmen, and marines. This program also provides for construction of the Joint Analysis Center (JAC) in the United Kingdom. The JAC is my number one theater intelligence priority. It will serve as the centerpiece for a much smaller post-CFE intelligence structure. The JAC will not only provide traditional intelligence products to NATO and US forces, but may play a major role in CFE treaty monitoring activities. The 17 projects I am requesting for Army forces and the 21 for the Air Force are focused on giving our people quality living and work spaces and supporting readiness and training. The small Navy program of five projects is oriented on facilities for maintenance and operations. There are also six medical facilities that are especially important, along with 10 DODDS school projects to correct substandard, aging, and overcrowded buildings. The enormous pressures on the DOD budget should not be allowed to overshadow the fact that these facilities will support our post-CFE forward deployed forces.

My top goal is to give our people an environment that promotes pride, professionalism, and individual dignity. This priority is valid regardless of the size of U.S. forces remaining in Europe after a CFE agreement. The ultimate strength of the American fighting force is its people, and we must make every reasonable effort to ensure they receive appropriate health care, decent housing, an adequate MWR program, and a workplace in which they can serve efficiently. Supporting our people signals our commitment to them, strengthens their morale, and is returned manyfold in their dedication to mission accomplishment. This simple principle of attention to the welfare of the force is especially important during a stressful time of drawdowns and restructuring.

The reduction of forces envisioned in the CFE negotiations and likely SNF negotiations does not diminish the need for appropriate, modern, theater based nuclear weapons. NATO, through its Nuclear Planning Group Ministerial meeting in May, has welcomed the President's decision to terminate the Follow-on to Lance program and to not pursue any additional modernization of nuclear artillery shells in Europe. At the same time the NATO ministers recognized that deterrence of war will continue to require the widespread Alliance participation in an appropriate mix of survivable conventional and nuclear forces based in Europe. In light of these decisions, I recommend continued emphasis on the fielding of modern dual-capable aircraft armed with the SRAM-T nuclear missile.

During the transition period and in the post-CFE era, we need to ensure the readiness of our remaining forces. A key factor in the readiness process is OPTEMPO, the frequency and duration of operation and training on our vehicles, planes, ships, and other weapons. In addition to the right number of flying hours, vehicle miles, and ship steaming days, we must also have the right training mix of computer simulation, field and command post training exercises, and individual training events. We have made significant progress in this direction while enhancing the training benefits to different echelons of command and decreasing environmental impacts. Facilities such as the Combat Maneuver Training Center and the Warrior Preparation Center provide the wherewithal to improve training yet minimize the requirement for costly, large-scale exercises.

The movement of the 401st Tactical Fighter Wing form Torrejon AB, Spain, to Crotone AB, Italy, is key to maintaining deterrence in the Southern Region. Its 72 F-16C/D aircraft provide counter air, ground attack and nuclear capabilities in a region which is short on state-of-the art air. The 401st TFW represents a significant portion of NATO's third-generation aircraft in the Southern Region. As we contemplate SNF negotiations and further reductions in theater-based nuclear weapons, which will continue to play a major role in war deterrence, it would be unwise militarily to withdraw those 72 dual-capable aircraft. As the Soviets move their forces east from the Central Region, the likelihood of hostilities commencing in a flank region increases due to greater force imbalance. If there were only two fighter wings in Europe, I would want one to be based at Crotone.

Reinforcement is now a key to successful deterrence and defense in Europe; if CFE reductions are achieved, its importance will be even greater. We need to continue our balanced approach to building strategic lift capabilities and completing our stockage of forward-deployed equipment (POMCUS). The C-17 aircraft is needed to complement our aging airlift fleet with added capability to deliver time-critical forces worldwide directly to the combat area. Because up to 95% of our requirements must travel by sea, we have to invest in the infrastructure and shipping to get them across the Atlantic.

Joint interdiction as an element of deterrence and war-fighting remains essential in the emerging European environment. It will continue to find the enemy and enable defenders to deny him the opportunity to concentrate forces. Most important, it creates a mobility differential between friendly and enemy forces. Our post-CFE war-fighting concept will have to rely on small, more mobile forces employing high-technology, long-range weapons on a fluid battlefield. In this new environment, interdiction and the suite of high-technology supporting systems will provide three key capabilities: the ability to see enemy forces, deny thee enemy the opportunity to concentrate, and support the friendly commanders' operational concepts. The systems supporting joint interdiction will be critical in the emerging war-fighting environment because they provide a much greater capability to see and execute in width and depth with the necessary timeliness. In the event of an operational penetration by enemy forces, interdiction-supporting systems provide the means to attack penetrating enemy forces in the friendly rear with a minimum of collateral damage.

JOINT STARS is the centerpiece for the interdiction of attacking follow-on forces because it orchestrates the countermobility effort. The Joint Tactical Fusion Program is an Army and Air Force automated system to correlate and analyze high volumes of data and disseminate the results to commanders on the battlefield. ATACMs is an improved conventional missile system that is able to attack important targets beyond the range of cannons and rockets, while the TACIT RAINBOW missile responds to a critical shortfall in our capability to suppress the surface-to-air missile threat. TACIT RAINBOW complements the HARM missile, as well as electronic countermeasure systems, and will be a force multiplier by increasing both sortie effectiveness and sortie generation rates.

CONCLUSION

I appreciate the opportunity to appear before this committee and present my views. The developments in the Soviet Union and Eastern Europe indicate that we are at a critical point in History—not just for Europe, but for the United States and the rest of the world as well. The principal national security lesson of this century—embodied in two devastating world wars and a tense, but successful post-war peace—is that the future of the United States is inextricably tied to the course of events in Europe. At this crossroads of History we must be adroit at modifying existing institutions which have for so long contributed to deterring war.

My central theme has been that NATO is the nucleus of any viable framework for European and American security. The Atlantic Alliance continues to offer the best anchor of stability as we endeavor with our Allies to chart a stable course through the potentially turbulent years to come. As the Soviet capability to attack Western Europe decreases, forward-based U.S. forces in Europe will likewise diminish. NATO's credibility as an instrument to safeguard peace will continue to depend on the Atlantic Bridge—the commitment of U.S. conventional and nuclear forces to the defense of democratic Europe. I look forward to working with you so that we can do just that.

CONVENTIONAL FORCES EUROPE

Senator INOUYE. Thank you very much, General. Before I go on to my so-called prepared questions, responding to your summary, you presented the so-called best-case scenario, where, if the INF goes through as planned, and the CFE is signed and ratified, you spoke of a time period that is necessary to carry all of the elements out and implement them, and the costs involved.

Can you submit to us that cost schedule and the time schedule that would be involved?

I ask this because Senator Stevens and I have been just appointed to a small task force to work with the Secretary of Defense to come up with some workable plan or project for the fiscal year 1991. I am afraid that the request that I have seen so far has no mention about the cost of force reductions and the movement that will be necessary. There is no anticipation of such.

COSTS

What you are suggesting is that the costs would result in a net increase, isn't that right, for the short term?

General GALVIN. I don't think, Mr. Chairman, that the cost would result in a net increase. What I am saying is that a peace dividend, or a decrease in cost, is definitely going to be there, but that any time you make a change as big as the one we are making, even in an industry, usually the change itself, up front, costs you for the first whatever couple of years. It costs you to make the change before you start to reap the profit.

I think that this is true because of the types of actions that we have to take, some of which I have suggested.

Senator INOUYE. That is what we would like to know, the upfront costs.

General GALVIN. I can try to give you an estimate on those costs and I will. You mentioned time, sir. I can do that, too, but it is going to have to be a rough estimate, and there is going to be a question mark in there. I do think that one of the things we need to be careful about is that we do not get ahead of the Soviets in terms of the reductions. They are the ones who have been bigger, and we need to come down together.

Now I think they are going to say if they do accept the CFE Treaty and they have to destroy those 90,000 pieces of equipment, they are going to throw up their hands and say we can't do this in a year or 2 years; this is going to take us 5 years; this is going to take us more. Some of them have even said lately, the military, that they want 10 years.

So, whatever we decide to finally give them, I certainly hope that we also take that same amount of time, so that we don't come down first and then anticipate that they will follow.

So that may get in here and mix up the problem of the time factors. I will do the best I can on costing with the staff that I have. I don't have any controllers or anything like that on the staff over there, as you know.

[The information follows:]

CFE Costs

There are many parts to treaty implementation, and several U.S. organizations will share the up-front costs of implementation. Implementation will involve: transferring and destroying equipment, perhaps paid for, in part, by NATO; conducting and receiving inspections, largely paid for by the On-Site Inspection Agency; and theater implementation including closing bases, removing troops and families from Europe, funding civilian transfers and severance pay to foreign nationals and restructuring the residual force, paid for by the USEUCOM Service Components. Determining specific dollar figures associated with each of these areas of expense is ongoing, yet far from complete. The problem is that the estimates are tied to assumptions about the outcome of treaty negotiations.

Destruction costs borne by the U.S. will depend upon how much excess U.S. equipment is eventually transferred to other Allies through the NATO Harmonization process and upon potential NATO common funding. To distribute the burden of destruction, the U.S. position is that NATO countries should share the costs of destruction.

I understand the On-Site Inspection Agency is preparing its cost estimate for verifying CFE compliance. This estimate will be based on an estimate of the number of inspections to be conducted.

The major up-front cost will result from theater implementation. This cost will be spread over several years, as the U.S. implements its phased reduction program.

[Deleted.]

AREAS OF AGREEMENT WITH SOVIETS

Senator INOUYE. From the information you have received, General, what have we agreed upon in the CFE and what have we not agreed upon?

General GALVIN. Well, where we are pretty much in agreement is on the level of tanks, the level of artillery, and the level of infantry fighting vehicles. There is not a lot of question about that.

In the air there is a question. The Soviets want an agreement with higher numbers of aircraft. They want over 6,000 fighter aircraft each. We could do with less and we have been pressing for less.

It has not been acceptable to them.

[Deleted.]

It is ironic that we have to actually accept more than we want in order to get them to sign something. But that may happen.

There are also some questions on helicopters. But I do think that the only thing left to be resolved, in which you could not just split a minor difference, is aircraft. Let me give you an example—the difference in tanks right now is that we do not want to go below 20 tons in talking about a tank, and the Soviets say they want to go down to 18 tons when talking about tanks.

Our modern tank today weighs 60 tons; so something down at that level really does not matter much. We could split the difference.

We are ready to do all of that except on aircraft, but I think we can get closer on aircraft. I have submitted several suggestions in the last 10 or 15 days to Vienna, two specifically which would allow some kind of compromise.

[The information follows:]

A SUGGESTED DEFINITION FOR COMBAT AIRCRAFT

For CFE, a combat aircraft is a manned fixed-wing or swing-wing aircraft of a type initially constructed, or later converted to drop bombs, deliver air-to-air or air-to-surface missiles, fire cannons/guns or employ any other weapon of destruction.

In the event that an aircraft type exists within the ATTU area, in the armed forces of a member of a participating Alliance, in both combat and non-combat configurations, then all aircraft of that type in that Alliance shall be counted. An aircraft type should not, however, be included unless a combat capable version exists within the ATTU area.

Only permanently land-based aircraft within the ATTU area fitting the above definition and listed below, are counted. This type list, which covers combat aircraft in existence at the inception of the Treaty, forms an integral part of the definition. It will be reviewed and mutually agreed periodically to take account of inventory changes.

NATO AIRCRAFT TYPES

A-7
A-10
ALPHAJET
AM-X
ATLANTIC
BUCCANEER
CANBERRA
CASA-101
F-4
F-5
F-15
F-16
F-18
F-35
F-84
F102
F-104
F-111
G-91
HARRIER
HAWK
HUNTER
HU-16
JAGUAR
LIGHTING
MB-339
MIRAGE F-1
MIRAGE III
MIRAGE IV
MIRAGE V
NIMROD
P-3
S-2E
SEA HARRIER
TORNADO
T-2

WTO AIRCRAFT TYPES	
BADGER	TU-16
BACKFIRE	TU-26(TU22M)
BEAR	TU-95/142 *
BLACKJACK	TU-160
BLINDER	TU-22
FAGOT	MIG-15
FENCER	SU-24
FIDDLER	TU-28P/128
FISHBED	MIG-21
FISHPOT	SU-9/11
FITTER	SU-7/17/20/22
FLOGGER	MIG-23/27
FLAGON	SU-15
FLANKER	SU-27
FORGER	YAK-36
FOXBAT	MIG-25
FOXHOUND	MIG-31
FRESCO	MIG-17
FROGFOOT	SU-25
FULCRUM	MIG-29
MAIL	BE-12

*Note: BLACKJACK and BEAR H to be covered by START.

PROPOSED DEFINITIONS FOR CFCT AND LBNA

Combat capable trainer [CCT] [Deleted.]
Land-based naval air [LBNA] [Deleted.]

POSSIBILITY FOR CIRCUMVENTION

Senator INOUYE. Can any of the elements be circumvented covertly and be reversed quickly if they decide to change their minds?

General GALVIN. On circumvention—and, of course, the whole question of verification is one that I am very much interested in—I think that there can always be circumvention. The real question is, when does it get to a scale that really matters and when is it just in the noise level.

I think we can live with minor circumvention. Some places I think we are just going to have to accept the possibility of circumvention and do the best we can on verification. For instance, with any kind of treaty that we get in chemical weapons, since, as you know, the major ingredient of chemical weapons is alcohol, it is pretty easy to conceal a buildup. But I think we have to keep asking ourselves the question, When does it really get strategically important? and not try, even in verification, to verify every little infraction because, if we do, it is going to cost us a fortune, and it is not worth it because, even if you found out about it, it could be so small that 16 countries would never take collective action on it.

So I don't really see those as a problem.

If there is a problem at the moment, it is that the whole structure of verification is not quite clear. We don't want to end up stumbling over each other going over there to verify. So there needs to be centralized planning for verification.

I am working on that with NATO right now.

GERMAN REUNIFICATION

Senator **Inouye**. One of the major items on the European agenda is the reunification of Germany. As a military commander, can you share with us your thoughts?

General **Galvin**. I think, first, that we should all welcome the unification of Germany. But a unified Germany must be a member of NATO.

Now, whether there will be a special qualification in that; for example, the eastern portion of the new Germany would not have NATO forces in it, I don't consider that a big enough problem to block any kind of unification. It is not a problem that would hurt NATO particularly. We already have lots of special qualifications with other countries who are members of the alliance.

What is really important is that Germany remain within NATO; that some forces, albeit smaller than now, are forward deployed; and that Germany accept, as she has in the past, the strategy of NATO, which includes nuclear deterrence.

Senator **Inouye**. We have been advised that some of the NATO countries are already reducing their forces in anticipation of the CFE Treaty.

I would like to know, No. 1, is that true? If so, what are the specifics?

UNILATERAL FORCE REDUCTIONS

General **Galvin**. There are not any countries that are in any significant way reducing their forces already. But just about every country in NATO, when you look at that country's 5-year plan or 10-year plan in terms of the funding of military activity and organization, there are cuts that are laid out there.

Now these cuts make assumptions, such as that a CFE Treaty will be signed along the lines of the current proposal, and that the threat will be gone, and so forth.

Each of these countries insists that if the assumptions are not met, then planning will change. But the thrust of the future in all of the countries of NATO is down in terms of the planning for support. But action has not been taken as of now.

TEN IN TEN

Senator **Inouye**. At this moment, we have the so-called 10 divisions, 10 days commitment. Is that going to stand after CFE?

General **Galvin**. [Deleted.]

What I am studying now are two questions that have to do with significant changes in strategy. One of those is that strategy has to take into account arms control. The other one is that any new strategy involves the question of force generation, and that includes mobilization, deployment, reinforcement, sustainment of forces.

Now, I believe that there are many other aspects in which the strategy of NATO will change, and will change quite soon. But those are two.

So I can see that, as the Soviets have to move back, even though it is only 600 kilometers, and we still have the 6,000 kilometers to move across—the ability to reinforce any battle has changed somewhat. This means that some of the problems that I had previously have now shifted to later in any timeline that has to do with conflict in Europe. I would like to discuss that a little later in terms of fast-deployment ships and other lift.

CHEMICAL WEAPONS DESTRUCTION

Senator **Inouye**. As you may know, we have had a few problems with the Johnston Atoll facility. If that facility is unable to receive your munitions on schedule, do you have any undue risk to store the munitions in Europe, to continue to store them?

General **Galvin**. Well, I would hope that, if it comes to the point that Johnston Island cannot receive the munitions, we would ship the munitions out of Europe anyway. We have a ship in which the munitions would be secure. The ship can move if there is a storm there. They can be off Johnston Island.

I have not raised that yet with anybody in the Pentagon because I am still looking to see what the results are going to be at Johnston Island. But the other alternative would be simply not to begin the shipment to the port, [deleted].

Senator **Inouye**. General, I have many, many other questions. But there are members who are waiting to ask their questions, so may I call now on Senator Stevens.

Senator **Stevens**. Thank you, Mr. Chairman.

BASE CLOSURES

General, I understand you do have a plan for the closure of bases, that you are working on a plan for closure of bases. But there is some indication that it is not complete.

Can you tell me when you think you will have the plan for this year completed?

General **Galvin**. I should be able to submit the plan for this year very soon.

Let me describe, first of all, how I am approaching planning for base closures.

What I am trying to do is get 1 year in which I am pretty certain of what I am doing, and then have a range of options as we go out to the second and the third year.

I do not want to try to say in any specific way, if I can help it, what I want to close in the out-years because I want to leave myself some flexibility. There are literally dozens of things that can happen to change what installation might close or might not close, and [deleted].

So what I plan to do is submit a plan in which the first year is laid out in detail and the other years are laid out as ranges of options. I would think that that plan could be in here by the end of the summer.

Senator Stevens. Will that be shared with the Congress?

General Galvin. My understanding is yes; the first thing that has to happen here is an approval of the plan at my level. Then I send that back before we discuss it with the host nations, back to the Pentagon. The Pentagon approves it. My understanding then is—and I don't know what the verbs and so forth are here—that there is coordination with the Congress on this.

Again, I would have to get with Colin Powell and Mr. Cheney on that.

Senator Stevens. In some of the discussions that Senator Inouye indicated are going to take place and in some that are already taking place behind the scenes here, there is an indication that we may have just a freeze on all overseas milcon expenditures and PCS expenditures until we get the plan.

Are you aware of that?

General Galvin. I have not heard that. I didn't realize that there was any question about whether you would get the plan; that is, that you would have to take some kind of action or put some kind of pressure on somebody to get the plan.

Senator Stevens. Oh, it's not that. It's just that we have requests pending before us that were submitted based upon decisions that were made in October, and that was actually before the wall fell; that is, when those numbers were put together, as we understand it.

That is just, as I understand it, sort of an informal understanding here, that we are going to wait for the Department to come up with recommendations which we assume will be based upon your negotiations.

Are the host countries in Europe given any kind of participation in preparation of these plans for base closures?

General Galvin. Not until it is approved by the United States. I do not intend to seek any kind of approval or coordination, except on the most informal basis. I mean, already we have had lots and lots of German local authorities come in and say, "Gee whiz, if you have to close any of the four bases in my area, would you close base No. 2 first," for instance, or something like that. But we don't have any coordination beyond informal commentary like that from them and we don't intend to until we get approval in this country for what we are going to do.

Senator Stevens. I have not seen such a letter myself; but I have heard there is one running around the Senate from some local officials in Germany, recommending which bases to close.

General **Galvin**. Oh, there is more than one, Senator Stevens. There are a lot of them.

First of all, it is a political move, where they are telling their constituents "Look, I'm dealing with the Americans on how these bases are going to close." But nobody is dealing with us on that, except that it is kind of one-way dealing, you might say. They are giving us information about what their preferences are, and it is coming from everyone from the local mayor to the minister or president of the state, to the Bonn area.

But, as of now, we are not coordinating with them, not until we get approval.

Senator **Stevens**. We are told that there are plans to continue the R&D and procurement to produce 66 M-1A2 tanks for Europe. Is that your recommendation?

General **Galvin**. What I have said is not as specific as anything like that. I simply set a requirement, rather than make a recommendation like that. My requirement is to insure that we replace all of the older tanks with the M-1.

Senator **Stevens**. Well, won't those tanks exceed that tonnage limitation that you have mentioned?

General **Galvin**. The debate involves the lower limit; what is a tank? At 60 tons the M-1A2 clearly is.

LANCE MISSILE

Senator **Stevens**. Have you supported the elimination of Lance?

General **Galvin**. Yes; I have.

Senator **Stevens**. Have you signed off on that?

General **Galvin**. [Deleted.]

INTELLIGENCE STRUCTURE

Senator **Stevens**. Some of us are concerned about the maintenance of the intelligence structure that we need to keep track of developments in the European Theater. Can you tell us if there are any special considerations being given to the maintenance of the installations that will be necessary for military intelligence, and particularly with regard to what is going to happen with the Berlin operation now?

General **Galvin**. I think, Senator Stevens, that we are going to hear lots of talk about this from various people. We have experts all over the place who want to talk about intelligence, and especially as it applies to Berlin. [Deleted.]

As the Soviets begin to pull out of East Germany—and I must say now that there are 380,000 of them, and they have not pulled out yet, and one of the things that Gorbachev has stopped is the movement of the two divisions that he planned as part of his six-division pullout. He has stopped that movement.

[Deleted.]

GENERAL OFFICER TRANSPORTATION

Senator **Stevens**. We maintain a substantial fleet of aircraft dedicated to support of your senior commanders in Europe: 135's, C-20's, C-21's, C-12's. We also have an on-the-ground series of dedicated command trains. In view of the changes, is that redundancy necessary?

General Galvin. No; I am already working with General Saint to control those command trains. We have already eliminated one of them. In terms of the aircraft, as you know, I think you remember that when you and I discussed this with reference to me, I had already turned down a Gulfstream IV because I didn't think I needed a new aircraft.

But I did travel 188 days last year in the aircraft that I have, and I feel that the right level of aircraft for commanders over there is a good idea. There are very few aircraft like mine, which is a personal aircraft; that is, has been detached for my use. The rest of them are pool aircraft, in which a commander has to ask for one and he gets what is available.

Senator Stevens. I don't think anyone is going to question your need, particularly during this period, for your own aircraft. But it was the redundancy that was called to our attention, as to whether the redundancy for on-the-ground-maintained senior commander capability, as well as the air, was necessary in view of the changes.

We can go into that later.

LOW-LEVEL FLYING

I do not want to belabor this as I know other Senators are waiting. But one of the things I just heard about was the concept that there was a plan to develop a North Atlantic training area in Canada for NATO. I am told that that has been objected to by some of the Canadians. We now have a series of restrictions in Germany, and we have just had a series of British Tornados flying in my State.

What is the plan now for a training site in the northern sector for NATO? Is there a new plan? Is Alaska to be considered the new ACMI area? What is going to be the plan?

General Galvin. We have just finished a study to see whether we could get more low-level flying in either northern Canada, operating out of Goose Bay and Labrador, or in Turkey, operating out of Konya. We discovered that it was not feasible to go to Turkey, and it may not be feasible to expand the current training which is going on in Canada, which involves several NATO countries, including Germany, the United States, and others, flying out of Goose Bay, low-level flying, over northern Labrador.

Right now, at least within NATO, we do not have a plan for trying to expand training in Alaska. But I don't know whether the U.S. Air Force, here in Conus, has some activities going on with reference to that.

Senator Stevens. Did we put milcon money into northern Canada?

General Galvin. I would have to try to get an answer to that. I don't believe that we did. But I would have to look at the infrastructure program to see. There may be some projects in there. We have not really done much at Goose Bay to expand anything there.

Senator Stevens. But did NATO put money into northern Canada?

General **Galvin**. That's what I mean, NATO infrastructure. I don't know the answer to that.

At the moment, I would answer that I don't think so. But I will find out, Senator.

[The information follows:]

NATO Infrastructure Support to Canada

Slices [deleted] of the NATO Infrastructure Program [deleted] have included projects totaling [deleted] Infrastructure Accounting Units (approximately [deleted]) for Canada. The projects are under the supervision of [deleted]. No projects are located in [deleted].

Some NATO nations, on a bi-lateral basis, have funded projects at Goose Bay, Labrador.

Senator **Stevens**. What about the new Italian relocation? Where will they train? Where will those forces train that will be relocated in Italy, in Crotone? Are you going to have a low-level capability there?

General **Galvin**. Yes; there will be a low-level capability out over the Adriatic, and also we are working toward having an air-to-ground range that will be located in the vicinity of Crotone.

It is a good area in terms of airspace for air-to-air training because there are not a lot of airlines going across that portion of the southern Adriatic.

So I think we will have some very good opportunities for training there.

Senator **Stevens**. Did anyone ever raise the question of availability of the ranges and particularly the low level—we have 2 million acres of Alaska reserved for low-level training. Until the British came, though, no one has used it. Has anyone raised the fact that that land was reserved in Alaska for low-level training?

General **Galvin**. I talked to you about it about 1½ years ago, and raised it at the time. It was looked at. I think one of the problems is the distance that most of the NATO nations would have to travel to get there to train and then get back.

But I still think it is a very good idea and I hope that that option stays open, because I see some other options closing out.

Senator **Stevens**. Like a lot of other options, General, if they are used before a crisis arrives, there won't be any problem. But if we are the last ones to be used—and the Eskimos have objected in Canada and Labrador, and people of Spain and other places, such as Turkey, have objected—so you can be sure there are going to be objections in my area if we are the last ones. I keep saying that. I hope someone will listen because I am certain that if the use is established before the crisis occurs, there won't be objection. But if low-level problems are going to come to us at the last minute, I am sure the environmental groups of my State will be at the front of the ranks at the time a move is suggested.

At least we have established that ACMI range and set aside what is really a total of 10 million acres. But it has had very little use.

Senator **Inouye**. If the Senator will yield, I want to second that, because, General, I was there. I think this is the last place available in the United States.

Right now, we have a little island close by to populated areas in the Hawaiian chain, and I think that is about ready to be closed up. We may be moving out of the Philippines. We are going to be moving out of Europe possibly. I would suggest that you look very seriously at Alaska and the distance between Alaska and Europe is really not great.

Senator STEVENS. Thank you.

I will close by saying that I really think the problem is all of the attention will focus on the last place that is available, unless it has been in use before that comes. That is one of our great problems.

Thank you very much, General. I am sorry for the delay.

General GALVIN. Thank you, sir.

Senator INOUYE. Senator DeConcini.

Senator DECONCINI Mr. Chairman, thank you.

General, your statement, does it contain classified information, the statement that you gave us here?

General GALVIN. The statement is unclassified, sir.

Senator DECONCINI. Thank you.

CHEMICAL WEAPONS DESTRUCTION

In the Washington summit just ended, General, there was an understanding or an agreement reached on chemical weapons. At this time, it is my understanding that the Soviets do not have the means to implement the reduction of chemical weapons; is that correct?

If so, what do we do about that? Did we really get anything, if you know?

General GALVIN. I don't know that that is true, Senator, that the Soviets do not have the means to do that. There has been some talk by the Soviets that it is going to take some time to do it.

Senator DECONCINI. Do we know how much time?

General GALVIN. No; I don't know. But, just judging from our own estimates out at Johnston Island of what it is going to take to destroy what we take out of Germany, it amounts to years.

Senator DECONCINI. Years?

General GALVIN. Years, yes.

Senator DECONCINI. Do you mean 3, 10?

General GALVIN. Yes; something like maybe 3 or more years to do it.

Senator DECONCINI. Three or more years, then.

General GALVIN. If you do it without expanding too much.

Senator DECONCINI. I cannot remember where I came across the information—but I thought the Soviets did not have the capacity to do that, and I guess I am looking for verification, that maybe we would have to give them some technical assistance.

Can you comment on that, General?

General GALVIN. I will have to do it later, sir. I do not have that information myself, either.

Senator DECONCINI. OK; maybe I am mistaken. But I thought at least that I had read that someplace.

WARSAW PACT VIABILITY

General, the general impression is that the Warsaw Pact is literally nonexistent, or defunct. Do you agree with that?

Is there any structure left at all in the Warsaw Pact, or any capability whatsoever?

General **GALVIN**. Well, there is the structure left. In fact, there is a meeting today in Moscow of the Warsaw Pact. There is a commander out there, General Labov. But the idea that the Warsaw Pact could act today as a homogeneous fighting force is just not credible.

Senator **DECONCINI**. Is there a force still outside of the Soviet Union?

General **GALVIN**. The nations of the Warsaw Pact have their own forces. But I don't think that they would use those forces in any way that the Soviets would like.

So I would say, in sum, that the Warsaw Pact is simply not what it was before, nor can it be in the future, something that the Soviets can expect to manipulate.

Senator **DECONCINI**. That being the case, then, should we continue to treat collectively members that are in the Warsaw Pact?

General **GALVIN**. I don't think so; no.

Sir, I think, with reference to the Warsaw Pact, that we probably ought to be careful that we do not either encourage those members to break up the Warsaw Pact or encourage them to stay in it, but to let them have their meetings. In fact, at this meeting, one of the nations, or so I heard this morning on the news, is going to come up with a recommendation that they dissolve the pact.

I think it would be a better idea to let them do that, decide what they are going to do. Then, whatever comes of it, is their own idea.

Senator **DECONCINI**. How do you approach the situation—again, I read this in the press and am not sure that it is correct—that Hungary has made very clear their desire to leave the pact altogether? What do we do with that? Do we just wait until they break it up, or do we say, Yes, come on, leave it and join us, or something like that?

Do you have any recommendation?

General **GALVIN**. Well, the things that we want to happen are rapidly becoming faits accomplis. The Soviets are pulling out of Hungary and are pulling out of Czechoslovakia. They really are doing that. They are not pulling out of East Germany, but they are pulling out of the other two places.

They don't have a heck of a lot in Poland, but I would assume they will ultimately pull out of there, too.

So it is all happening. The pact is falling apart. The best thing to do is to just watch it fall apart.

Senator **DECONCINI**. Just let it happen.

General **GALVIN**. Sure.

ALTERNATIVE TO NATO

Senator **DECONCINI**. I appreciate your comments, General, on the CSCE in Copenhagen and the need for some other structure to make some decisions as to security matters and maybe even economic matters. Consensus building is very important, and I think CSCE has played an important role and will continue to do so.

Certainly your point is well taken.

What do you see if the Soviets and some Eastern European countries, but at least the Soviets, can't accept the continued existence of NATO? Is there something else in your mind that could be implemented among those European countries, the United States and Canada, that want to have a structure but, for purposes of longstanding animosity and confrontation, prevent NATO from being that structure?

General GALVIN. Well, first I think that we are hearing a lot of things from the Soviets about what they can and cannot accept. They cannot accept a unified Germany within NATO, or they cannot accept nuclear weapons in Europe, or they cannot accept NATO, and so forth.

I think it is really up to us to decide whether NATO stays or goes. The Soviets have said ever since NATO started that they cannot accept NATO.

Gorbachev's book, "Perestroika," says that NATO needs to go. Of course, he said that he thinks the Warsaw Pact needs to go also.

I think that at some point here we need to make it clear that NATO is our security alliance and that we feel that our security depends on a collective of nations, and that we cannot go it alone in the world, and that NATO is the way we see to do it.

Senator DECONCINI. Is there anything that the Soviets can do to prevent Germany, a unified Germany, from becoming part of NATO?

General GALVIN. I don't see, really, what the Soviets can do except to continue to say they don't like it. I don't know how long that will go on.

It may be that Gorbachev feels that, for internal consumption, he has to say that he does not like the idea of NATO or of the new Germany within NATO. But I personally am convinced that the Soviets are not going to do anything about it if it comes about.

Senator DECONCINI. What about this? Czechoslovakia has proposed the creation of a European Security Commission. Have we looked at that at all, or have you?

General GALVIN. I have not looked at it in detail. But I think NATO will be looking at it in these meetings that will be coming up, such as the one on July 5 and 6. But I think that the general answer to those things should be that we support CSCE, the Conference on Security and Cooperation in Europe, and that this is the force where such things belong.

How many organizations do we really need? We have the EC, the WEU, the CSCE, and NATO.

I think we should be able to fit things into their proper area. I think, in general, CSCE is a forum, a good forum, where security concerns and other concerns can be brought forward; where the use of public opinion does a lot. It's like the U.N. Then I see other uses for the other force that seem to me to be pretty obvious.

Senator DECONCINI. Well, it really isn't like the U.N. because it has no capability of any condemnation or any resolutions, other than total consensus.

General GALVIN. That is correct; it is a committee meeting, but with no structure.

Senator DECONCINI. But it certainly plays a pressure point position.

FRENCH ROLE IN NATO

Let me ask one last question about France's insistence on a special status in NATO since the 1960's.

Is that changing? Are they serious about becoming part of the alliance again, truly?

General GALVIN. I think that France would never want it to be said that it has become part of the alliance again. It never left the alliance; it left the integrated command structure. But it could take part more fully in a reorganized NATO.

Senator DECONCINI. In a new NATO, still called NATO?

General GALVIN. That's right. This would be France's view: we won't come back to the present integrated command, but we'll come back to a new structure.

Senator DECONCINI. What do you think that structure would be? Can you speculate what that structure might be?

General GALVIN. Well, I think it would be a structure that, from the point of view of France, in which the Americans are there and the security guarantee of the United States is there, but from more of a distance, which would allow for somewhat more French leadership in the organization.

Senator DECONCINI. Is that practical for us? [Deleted.]

Thank you, Mr. Chairman.

Thank you, General.

Senator INOUYE. Senator D'Amato.

GORBACHEV DIFFICULTIES

Senator D'AMATO. Did you expect Gorbachev to continue the withdrawal? Were you surprised when he stopped the withdrawal of the two divisions?

General GALVIN. I was slightly surprised. I knew that that was a possible option for him and I knew of the problems that he was running into. Basically, there is too much on the platter in Moscow. That is the biggest problem.

Senator D'AMATO. Is that what you believe it is, too much on the platter?

General GALVIN. Too much on the platter. The second biggest problem is the military pressure. The military thinks that things are moving too fast. They say they are not against any of this and they are for Gorbachev, but they just think it is going too fast. There are those two reasons.

I thought that he would raise the problems, but I did not think he would stop the movement of those two divisions, because I know how much he values public opinion. And now we have a point that is irrefutable, and that is that he has stopped on a promise that he made.

Senator D'AMATO. What impact has that had on public opinion in East Germany, in West Germany, and throughout Europe? Have you been able to sense anything? Are we evaluating Gorbachev?

General **Galvin**. There might be a slightly sobering impact from that, and there is somewhat of a reevaluation, perhaps not of Gorbachev's overall intentions, but of the environment in which Gorbachev finds himself at the moment.

I think the initial response to that has been, "Well, then, let's ease up a little bit on Gorbachev."

But the followup response, which seems to be starting to happen, is a kind of second thought in Europe, like wait a minute, we have softened now on the Baltic States, we are giving, or we seem to be, on the question of German unification; things are starting to drag a bit; so how far can and should we go to continue to insure that the Gorbachev environment in Moscow is sustainable.

Senator D'**Amato**. How much difficulty do you believe logistically, in terms of housing, feeding, what-not, all of those problems, will the move, let's say of the two divisions, place upon them? Is there a combination of problems such that, as a practical matter, there is no place for them, no homes, et cetera? Or is that something we have conjured up?

General **Galvin**. I think the movement of two divisions, when you have 380,000 troops to move, is not a major matter. I see the two divisions as a pawn in the Two-Plus-Four negotiations, and in the negotiations over the new Germany and NATO.

Senator D'**Amato**. So, could it be that Mr. Gorbachev himself has used this? He is a brilliant tactician, because we hear that if you don't take what Mr. Gorbachev puts on the table, he could be replaced by a hard-liner. Of course, I don't know who that hard-liner is.

General **Galvin**. I think that is exactly it. I think that this is a move by Gorbachev to call attention to the fact that he has some problems with this.

But I also feel that Gorbachev is not operating from a position of power. What power he has is the fear the West has that the Soviet Union might not hold together—a very legitimate fear, probably, since it might not hold together whether Gorbachev is there or not. And things are not looking any better yet. There are serious moves that I think Gorbachev finds himself ready to take, too.

C–17

Senator D'**Amato**. General, let me ask you just one other question as it relates to the request to cut the C–17 procurement by about one-half, I believe. [Deleted.]

What is your reaction to the Pentagon's, the suggestion of the Defense Department, that one-half of the C–17's should be cut in the procurement? How does that impact on our needs for rapid deployment?

General **Galvin**. Well, it does have an impact.

I support the C–17. I have always supported the C–17, since the beginning.

I also know that the strategy of the future is going to be very dependent upon our ability to respond. We talk about warning time, but, really, response time is what we mean. We have to be able to put forces back in Europe if there is a problem.

So, of course, a lot of strategic lift is sealift. But the airlift is also important to us. And so, I support the C-17. But then, when it comes to the Defense Department's choices when they have to cut some things, well, first, I am happy that the C-17 is still in the program. I wish it were more in the program than it is. But I have to realize, too, that DOD is up against a problem and has to make some cuts someplace.

I would like to have seen the C-17 not cut. But I am not making those kinds of decisions and I don't know what the other options would have been. So I am glad it is still in the program.

Senator D'AMATO. Thank you, General.

Thank you, Mr. Chairman.

Senator INOUYE. Senator Bumpers.

NATO STRATEGY

Senator BUMPERS. General Galvin, have you had an opportunity to see what I thought was a fairly sophisticated statement by Senator Nunn, that he made on April 19, 1990, on the floor of the Senate, in which he says—he is talking about a study—and he says:

> I know President Bush is meeting with President Mitterrand. I know there are a lot of discussions going on. I can't overemphasize the importance of NATO undertaking a highly visible study led—by that, I mean the top leadership of each country to determine and lead the way and pointing toward NATO's future and its future role under vastly enhanced conditions. I believe this study must take into account three realities. They are harsh realities, but they are, I think, very important, underlying changes. First, NATO's reliance on the threat of early first use of short-range nuclear weapons to deter a conventional attack is no longer credible. Second, NATO's assumption that the United States will maintain 195,000 troops in Central Europe is no longer realistic. Third, NATO's current strategy for forward defense at the inter-German border is no longer viable.

Would you comment, General, on those three statements?

General GALVIN. Yes, sir.

I do think that NATO needs to show that it is not doing business as usual, and that the situation is changing moreso than it ever has since the creation of NATO, and changing for the better, and that we, in NATO, need to adjust to that.

Doing that in such a way as to keep the consensus of 16 countries, sovereign, independent nations, is not something you can do overnight. We did have the conceptual military framework that came out a year ago last May, and I thought that that was a good, overarching, strategic look at some of the things that had to be done within NATO.

[Deleted] in other words, the word "early" needs to be there. On the point about the 195,000, the administration's position right now is 195,000 in the central region and 225,000 overall. But the President has said on various occasions that that does not mean forever; it means right now.

As far as forward defense is concerned, yes, we have to have a new strategy. The studies for that are underway. I am involved in them. A new strategy would be something that is eventually recommended by the Military Committee within NATO, of 15 nations, and then produced by NATO. I do not see that as being too far off. Maybe it is a year or so off, but not more than that.

Senator **Bumpers**. I want to come back to that in just a minute, General. But I do want to say that I freely confess that I have changed my mind about our presence in Europe. There was a time when I more or less agreed with Mike Mansfield that we ought to just get ourselves out of Europe. I think, especially now, I mean, I think 100,000 troops in Germany, for example, ought to be satisfactory. I think we can work toward that goal, maybe a little less.

SOVIET PERSPECTIVE

[Deleted.]

Senator **Bumpers**. I appreciate your comments about Gorbachev's discontinuing the withdrawal of these two divisions. He would still have an awful lot of people in East Germany. But once he withdraws all of his military from East Germany, he does not have any bargaining power left as to what kind of reunification is going to take place. He, frankly, would need a saliva test if he were to pull all of his troops out right now.

I think ultimately he will come around to our viewpoint. But if you had lost 20 million, or 26 million, whatever the figure is, people—you know, he has political considerations, too. The people of the Soviet Union don't like this a bit. And, while they are happy for Eastern Europe to democratize, and they are happy about the chain of events mostly, they still have this deep, abiding, and legitimate fear of the Germans.

General **Galvin**. I think that nearly everything you've said is correct, Senator. The Soviets do have an abiding fear of the Germans. But I do not think that that fear is necessarily rational at this point.

My own view of this would be that if 45 years after the Germans were the "Uncle Adolph" Germans we still see them the same way, we are being anachronistic. But if we do see them that way, then how do we see the Russians who just finished telling us they would bury us and banging their shoes on the table, and telling us that their ideology would be ours pretty soon, and all the rest of that, for the same 45 years?

Senator **Bumpers**. That was mostly bravado, General. We all know that was bravado. We now know it, anyway.

General **Galvin**. Well, I spent about 20 years not thinking it was bravado. I feel the Soviets are very powerful.

Senator **Bumpers**. Let me interrupt you there because I mentioned this in a hearing before.

I had dinner with Akhromeyev the other evening and he made a very interesting comment. He said, "Until I met Bill Crowe, all of my adult life I had believed that the United States was hell-bent on destroying the Soviet Union." He said, "Bill Crowe changed my mind about that."

I thought that you know, all of my adult life I have been convinced the Soviet Union was determined to destroy the United States. And so, what we had here were 250 million people over here and 280 million people over there, all of whom believed that it served a lot of purposes to continue believing that.

But we know that we never had any intention to attack the Soviet Union; but we never did know that they did not have that intent. All I am saying is—well, I interrupted you. I wanted to tell you what Akhromeyev had said, and I respect his feelings on that. I know what he meant.

General **Galvin**. I respect Akhromeyev and his feelings. I think he is a very thoughtful Soviet military man, and a marshal.

I watched the Soviets. I spent 15 of the last 20 years or so in Europe and I watched the Soviets. I had access to the intelligence. I saw their exercises. I knew something about their plans. Their plans were offensive. Their exercises laid out attacks across Europe. They talked about attacks across Europe.

They forward-stationed an enormous number of forces and a big mountain of ammunition and so forth. Every indication that I had was that, while they would justify such an attack in terms of their own security, of course, they felt that the best defense was a good offense. And Akhromeyev himself, when he went to the Council on Foreign Relations—and I don't know him personally—but when he went to the Council on Foreign Relations, he said our strategy was an offensive strategy, but we have now changed it.

Now, at the same time, Senator, I know that our strategy was not an offensive strategy. We did not exercise the attack. In fact, we were rather weak because we did not understand the mobility needed for operations, simply because we never exercised attack. We never planned attack and we didn't have any plans like that. We never said to people that this was what we were going to do.

So there really was a difference.

INTELLIGENCE FAILINGS

Senator **Bumpers**. There was, General, and you make the point very well. I would not contest that for an instant. They have always been in an offensive mode.

You know, some of the things that trouble me a lot are about not that, particularly, but decisions we've made based on intelligence.

[Deleted.]

Senator **Bumpers**. Now, in this agreement just signed, it is admitted by all parties, for some strange reason, that the Soviets had about 50,000 tons.

Do you have any comment on that?

General **Galvin**. I do not have a comment specifically on that. I think if the intelligence people misrepresented it, then they need to be called to task.

Senator **Bumpers**. I don't think they misrepresented it. I am not suggesting that. I am not suggesting that they lied to us about it. I am just saying that if we are going to cut the budget someplace, I am inclined to cut the intelligence community's budget. They have been telling us for 30 years that the Soviets have a GNP 50 percent of ours. But we now know that it has been less than 20 percent of ours for years.

General **Galvin**. I think that there are ways that I would criticize the intelligence community, too. They were probably too focused on counting things, rather than on saying what our adversaries were thinking about.

But I would say one thing in their defense. All along they told us how many tanks and so forth that they thought the Soviets had.

They used to get beat about the head and shoulders by people who said you are politicizing the numbers, the Soviets don't have anything like that.

When we finally, with our own blue book on NATO forces, forced the Soviets to come out with theirs, they came out with 59,000 tanks in the Warsaw Pact. We had never said, the intelligence people had never said, there were 59,000 tanks. That was a surprise, too.

So, they did not overestimate the Soviets in those areas. They, in fact, underestimated them.

NUNN SPEECH

Senator **Bumpers**. General, let me just close by reading you four statements in Senator Nunn's same address and ask you to comment on those.

He says:

> First, we must insist on greater specialization of roles and missions among NATO nations. The NATO nations, the European members, should assume the primary responsibility for the initial forward ground defenses, which should be heavily antiarmor, and not rely on large numbers of American forward-deployed troops. Second, the U.S. peacetime ground presence in Europe should be largely lead elements of combat units and combat support units. Third——

There is more to each one of those statements; I am just giving you the gist of them.

> Third, the United States should continue to maintain large, prepositioned stocks of combat and support equipments in Europe. Fourth, the United States should maintain some tactical air force units in Europe for both conventional and nuclear missions, and would commit to provide significant numbers of reinforcing tactical aircraft from the United States to Europe. This pledge, however, must be contingent on NATO providing adequate numbers of semihardened aircraft shelters, fuel and munitions storage, and maintenance and operations area at co-located operating bases in Europe.

Now I will turn you loose.

General **Galvin**. Well, I have the greatest respect for Senator Nunn and all of the interest that he has generated in Washington for a long time on NATO strategy and other aspects of the things that I am really involved in.

I would say that, on specialization of roles and missions, I believe in that also. One of the areas that we are looking at now is how we could have multinational forces in Europe.

Now, I think that that would probably lead in some cases to specialization of roles and missions. But, when you talk about overall national specialization, the problem that you run into there, Senator, the main problem, is that if you tell one nation we'd like you to have a navy and somebody else will have an army, they'll say, "Hey, wait a minute, what about our national interest? That might be nice for NATO, but what about us? We would end up with no army."

So it is a little hard to do that, or even to say to them, why don't you take the reconnaissance role and somebody else will take the strike role. Then they'd say, "Do you mean that, as a nation, we would have no strike capability?"

So that keeps getting in the way, the national security, which is always retained by nations which commit themselves to an alliance. The lead elements of forces——

Senator **Bumpers**. If I could just interrupt you at that point, wouldn't it be fair to say to a nation that as a member of NATO that we're not saying that you can't have a navy; we're saying that your primary responsibility under the NATO command will be this function.

Is there anything wrong with that?

General **Galvin**. There's not a lot wrong with that except that many of the nations already commit just about everything they have to NATO.

Senator **Bumpers**. Yes; their army, navy, and the whole works.

General **Galvin**. Right; the smaller nations, especially.

On the lead elements question, heck, it may come to that. I don't know. That will depend on how low we go down.

I do feel that we, in the United States, want to look at that one hard. As it is now, the United States has a lot of the leadership positions in NATO.

Let's be frank about something here. Take Germany. Germany has four four-star generals. Well, three of them work for me. There is only one who works for Germany, and that is the chief of the defense staff, Dieter Wellershof. But I have the others. They are all in NATO forces committed to me. One of them is my deputy.

So there have been arrangements that have been made. We talk about special arrangements for Norway or Germany or something. There are special arrangements for the United States, too. We have SACEUR. We have our way in what kind of nuclear custodianship there is going to be in Europe. We also have had a voice in how the German forces were formed when they came in and, indeed, how the other forces were formed.

Now, part of that is because we have been willing to commit ourselves forward.

Now, is there some point at which the other nations change their mind about that sort of thing, when you drop below 110,000 or something else? I don't know about that.

But I do think that if we begin to say that the United States will provide only certain lead elements forward, and, not only that, that if we do provide them, somebody else must take care of the problems of basing and structure and shelters for aircraft and so forth, then we are making a statement about our commitment, about our willingness to sacrifice to be a part of the organization.

As it is now, when we drop down by 80,000, which we will do in CFE, we really drop by about one-half because we have to take out one corps. There will only by one left then. We have two now, each one with two divisions each.

By the way, that is as small as you can get a corps. A corps can normally handle five to seven divisions. We have two corps over there with two divisions, because we have already drawn down over the years.

Now, we can also only do so much of this rotational thing. We are probably up to here [indicating] with that now with REFORGER because we said before when we drew things out, "Ah, but it is only rotational; we'll bring it back once a year to practice."

But we can't. Already we are finding that the cost of doing that is tremendous, plus the cost to the nations that have to receive the force that, take it through their ports, like Belgium, and transfer it across Luxembourg, and go into Germany, and so forth.

[Deleted.] I commanded the 7th Corps. That was 83,000 people. We have to have an Air Force, too. You have to have the intelligence people, the communicators, the other people that are over in Europe to do the various things that we do over there. And so, you would have to take that out of the 100,000. [Deleted.]

On the question of reinforcement, which I think was the fourth part of that——

Senator **Bumpers**. Prepositioned was No. 3. Those were stocks, prepositioned stocks.

General **Galvin**. Stocks, yes; that's right.

[Deleted.]

You have your operating stocks, you have your war reserve stocks, and you have what is called POMCUS, which means prepositioned equipment in unit sets.

So we have forward stocked a lot, compared to what the forward presence would be post-CFE.

I don't know whether you would want to go beyond that [deleted].

So I think that there is much to be said for maintaining a certain stockage level. There is something to be said for lead elements, if you get to that, for other reasons, such as you simply can't support what you would like to support over there.

On specialization, I think some of that will come about. But what is probably more important right now is multinationality, where each corps would have more than one national division within it. The British, instead of having a British corps, which they cannot keep if we go to these reductions, might have a British-Benelux corps, or the Americans might have an American-German-Canadian corps, or something like that.

We'll probably have to go to that if we want to keep corps structure. And you can't have operational maneuverability without corps structure because it is at the corps level that you bring the air force and the army together, and sometimes even the navy.

So, I think that what Senator Nunn has said, all of it bears a lot of study. I don't 100 percent stand up and salute and agree to it. But I have taken it all aboard, and have been working on it already. I do think that his thinking along these lines is innovative; it is good. And maybe you cannot use all of it, but certainly a lot of it.

Senator **Bumpers**. Thank you, General.

Thank you, Mr. Chairman.

Senator **Inouye**. Senator Specter.

Senator **Specter**. Thank you, Mr. Chairman.

NUCLEAR FIRST USE

General, I have been giving considerable thought to the issue of renouncing first use of nuclear, a subject which Senator Bumpers touched on very briefly. My own thinking of it has developed to a point where I believe it would be useful for the United States and NATO to adopt that policy.

We have seen the events that you have testified to in part about the reduction or perhaps even elimination of the threat of the Warsaw Pact, the additional time notification, so that the stage which had been set to have the possibility of first use appears to have vanished, although I think most, if not all, would agree that we probably would not have used it first at the start.

As I look around the world and see the development of nuclear forces, it seems to me that it would be a very useful thing for the United States to take a leadership role in making that announcement.

When we talk about our overall policy of deterrence, we have the capability for mass destruction to stop the other person from using it. So there is an implicit representation that we're not going to strike first against the Soviet Union with strategic weapons.

But we see a situation evolving right now in the Mideast, with Iraq and Israel, where Iraq does not have nuclear, but they have weapons of mass destruction and recent disclosures of powerful rocketry. Some of us have urged Saddam Hussein and Prime Minister Shamir, and even the Syrians, to make a pledge of renouncing first use. This is sort of implicit in what Saddam Hussein had said when he made the threat that he would burn half of Israel if Iraq were to be attacked.

Now, that is a rather extensive prologue to give you some of my own thinking on it.

But, in this context, why wouldn't it be useful and a significant step forward, and perhaps stealing some of President Gorbachev's thunder, for President Bush to take the initiative in consultation with our NATO allies in light of the changed circumstances, and say that we in NATO will formally renounce the first use of nuclear?

General GALVIN. I would say this, Senator.

First, we have always said that we included, in terms of our strategy, the possibility of the use of nuclear weapons for two reasons. One was that the other side was a lot bigger than we were. That goes back to 1951, when Eisenhower tried to get the NATO nations to build up enough divisions so that they would be equal to the size, or the potential size, that the Warsaw Pact—and at that time, it was simply the Soviet Union—could field. But the nations could not do it. They could not build to more than about one-third.

Therefore, at first the strategic and then the theater nuclear weapons were included in the strategy. The reason was the other side was bigger. But that was only one reason. There were two reasons.

The other reason was that nuclear weapons were felt to deter war. Nothing else had deterred war in Western Europe, ever since Western Europe was something that could be called an entity, for 500 years. So the war deterrent aspect of it then grew.

In fact, specifically within NATO, the general political guidelines were created after 15 years of continuous discussion, and finally published about 7 or 8 years ago. Those guidelines moved us, began to move us, away from a wartime fighting use of nuclear weapons on the immediate battlefield and toward nuclear weapons as a deterrent, sending a message to stop the war, even if the war had already started. Therefore, we have used the threat of the weapons for deterrence, as well as for warfighting capability.

Now, we know that, even when forces in Europe were at parity, this did not deter conventional war. In fact, as with World War II, often the force that was smaller attacked the larger force and began the war.

We had seen—and I do not think it is a coincidence—that since the time of the existence of nuclear weapons, we have not had a major war in Western Europe. I feel that there is a distinct connection there.

Now, if we say we renounce the first use of nuclear weapons, what we are saying is, we do not intend to use nuclear weapons under any circumstances first. This means that any opponent is free to begin a conventional war without the threat that nuclear weapons could be used against him.

That, in effect, makes Europe safe for conventional war, as some people have put it, in a rather vernacular way.

I also fear that. I think that we are in a situation in Western Europe now which is not really too far removed, in an analogical way, from about 1910. At the time, there were a lot of small nations with a lot of problems, a lot of insecurity, instability, a lot of movement, a lot of transition, a lot of different ideas about where Europe was going. I don't want to get back to a situation like that without some deterrent capability against major war.

Now, if we have to do something there, then I would look at the point about early use, rather than to withdraw totally from the idea of the use of nuclear weapons. Maybe early use could be something that is worth considering.

If both sides agreed not to use nuclear weapons first, and then, because treaties began to come apart and violations began to take place, the two sides went to war, what would that agreement about nuclear weapons really mean anyway? I am not sure. I think that we understand where we are now with our current policy on the use of nuclear weapons. We might use them in defense of ourselves if we felt that we either needed to try to stop a war or if we felt that we were being overwhelmed by a war. I think that those are legitimate statements to make in terms of one's own defense and deterrence.

Senator SPECTER. General, can you conceive of any circumstance where we would use nuclear force in a war in Europe under present circumstances?

General GALVIN. I don't think that anybody who would have to make recommendations along those lines ought to be too specific about what he would do or would not do. But I would say that I support the nuclear strategy, as it exists today, which is that we would threaten the use of nuclear weapons if we felt that we were being overwhelmed in a war or if we wanted to send a political message to stop a war.

Senator SPECTER. Well, accepting those two conditions, that we felt we were being overwhelmed or we wanted to send a political message, as I see the situation in Europe, we do not face that risk, given the realities there today. And, as to a political message, it seems hard for me, speaking for myself, obviously, to conceive of sending a political message of that sort because of the likely response.

I appreciate your responses, General. As I listen to you, my own conviction remains. I do not see strong military reasons not to take that initiative. But I very much appreciate your response.

Thank you.

Thank you very much, Mr. Chairman.

Senator INOUYE. Thank you.

POST-WWII SITUATION

General, if the Germanies are demilitarized as Gorbachev is suggesting, and the Warsaw Pact is gone, and we are out, aren't we back at the post-World War II situation?

General GALVIN. We are somewhat back in the post-World War II situation. Right now, today, the Soviet Union has 184 divisions, 117 of which are west of the Urals; that is, in our general area.

Senator INOUYE. So, even without the Warsaw Pact, they could easily overwhelm us?

General GALVIN. [Deleted.] I don't think that the Soviets are sitting in the Kremlin trying to come up with some kind of surprise attack on Europe. But if we simply took the number of forces available to both sides and the ability of both sides to build up forces for a war, we would find today that the Soviets were able to place a force against us in Europe which, without the backup of nuclear weapons, would be a very serious threat to us.

This is how they stand today.

Now, I could go through lots of scenarios that I have run over myself. I think that the Soviets, for example, would not try to execute an attack against central Europe and, at the same time, against Southern Europe or into the Trans-Caucasus or over in the Bosphorus. Or they might not attack northern Norway at the same time they attack central Europe.

But those capabilities are still there.

Now, something like that has a very slight chance of coming about. But there are other scenarios.

Suppose that the Soviets decide that they need to go back into Azerbaijan and Georgia again because they have a problem down there. Suppose it overflows into Turkey, and Turkey, with problems of its own right now, with the Kurds, the Iranians, and the Syrians, decides that it needs help from NATO, and the paragraphs in NATO say that any attack against a NATO member is considered an attack against all—it is rather specific, by the way, about Turkey in that case. Say Turkey asked NATO for help, and say that because NATO tries to respond in some way it generates a counter response in the Soviet Union, and so forth. There are possibilities, given the amount of instability and unpredictability in Europe right now, that I think we had better take into account.

I'm surprised when I hear people saying that it is all over, that there is no problem, that there is no security requirement, that we are going to see peace forever in Europe. I do not think that is true.

Human nature has not changed. The relationships that nations tend to have with each other, that kaleidescope is still out there.

Senator **Inouye**. Well, I have many other questions, everything from SRAM-T, 15E's, Patriot missile, the Italian Government, but we have a vote on right now, a cloture vote. So I would like to submit all of this to you with the gratitude of this committee.

Senator **Bumpers**. Mr. Chairman, may I ask the General one question before we leave?

Senator **Inouye**. Certainly.

STRATEGIC LIFT

Senator **Bumpers**. General, I think everybody agrees that the notification time is considerably greater now than it has been in the past, on warning time. Some people think it is double, maybe 60 to 90 days, and so on.

Does that diminish the sort of urgency that we have been giving to airlift and sealift capability?

General **Galvin**. I do not think that it diminishes it very much. But it does make some changes.

[Deleted.] We need to make sure that we have a good fleet of fast ships, the 25-knot ships that are being built today. We need to watch out that we keep the reserve ships that we have in the James and the Hudson Rivers, those that are serviceable ships. [Deleted.]

The basic part of it is that the Soviets can still bring a lot to the battlefield, but they do not have that initial surprise capability in the first few days that they had before because they would have to come across Poland and East Germany to do that.

Now, they abut Norway and they abut Turkey, and we still have to think of that. But in the major question of the way the Soviets would attack central Europe, there is a difference there, and that difference is the 600 kilometers of the Warsaw Pact.

[Deleted.]

Senator **Bumpers**. General, let me just make a comment on that.

I have generally supported the C-17. I must say that I had a sort of parochial reason. We were about to lose a mission at Eaker Air Force Base, and I thought we might have an opportunity to get a squadron of C-17's there. But I also favored it because we were trying to build our fast-deployment capability.

But, when you consider the amount of time—I mean, sealift capability is a lot cheaper than airlift capability. It seems to me that we need to be debating in this committee what is the cheapest, given the fact—and certainly you would admit that the warning time is much greater now, and I think we have to be looking at it. Is there this sense of urgency, for example, for the C-17, which is a very expensive airplane? Is there the same sense of urgency for it now, given the warning time, that there was in the past?

LANCE MISSILE

Let me make just one last comment.

How long should we leave our present Lance missiles there?

General **Galvin**. I think that that should be a matter of negotiation when we go into the SNF Treaty talks, and that should come about as soon as we finish CFE.

Let me say that on C-17, I still support C-17 because we have a lot of contingencies all around the world that are not just the simple, straight across the North Atlantic kind.

CROTONE

Sir, if I could, I would say one other thing before we close. It is that on Crotone, the bids have gone out. They have been accepted. The contract will be out next month. The groundbreaking is next month, and I would wish the committee would support Crotone.

If I had only two wings of air left in Europe, I would put one of them in the center of the Mediterranean, and that is at Crotone.

Senator **Inouye**. We will keep that in mind, sir.

In your response to Senator Bumpers, you spoke of the fleet in the James River. But, from what I gather, they are old, slow, and they are in storage. So you have to get them out of storage.

Do you think we can realistically depend on them? Don't you think we should begin replacing them with a faster fleet?

General **Galvin**. I think we should begin that. There is a mix. I don't mean just the James River, but the whole reserve fleet is a mix. Some of them are very old and some of them are not so bad. Where it is necessary to recognize that they have gone beyond their lifetime, then that should be done. But that does not apply to the whole fleet.

Senator **Inouye**. Once again, sir, I thank you. I think you have the toughest job as a CINC. Everyone is focusing on you. The decisions to be made are not going to be easy ones. So I hope we can maintain the closest of liaison as we come to decision time.

As chairman of this committee, I don't want to be in charge of a scenario that puts us out of business. So we will be counting on you for assistance, sir.

ADDITIONAL COMMITTEE QUESTIONS

We will submit the balance of the questions for response in the record.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR INOUYE

CFE TREATY

Question. General Galvin, do you think all the complex, unresolved issues can be satisfactorily resolved to permit signing a CFE Treaty by the end of the year?

Answer. While there are several unresolved issues remaining in the CFE negotiations, I believe an agreement is possible this year. We have made substantial progress in defining and setting limits for tanks and armored vehicles. This progress complements already agreed definitions for artillery and ceilings for the other treaty limited equipment. On the other hand, the negotiators have a tough task in resolving the very difficult issues surrounding combat aircraft and attack helicopters. The helicopter issue is difficult because of the necessity to distinguish between attack helicopters and those which may appear to be similar, but have different roles. The aircraft issue is difficult since, to this point, the Soviets want to exclude combat capable trainers and land based naval aircraft.

Despite the challenges, I still believe we can reach agreement this year.

Question. In January, the 1990 Joint Military Net Assessment for the Chairman, Joint Chiefs of Staff, said that under the conditions of the then-envisioned CFE treaty, the potential for termination of a global war on terms favorable to the U.S. would be greatly improved. Is this assessment still valid with respect to the currently-emerging CFE treaty?

Answer. Yes, it is. The current NATO CFE proposal continues to seek parity between the Warsaw Pact and NATO. Because the NATO proposal for asymmetrical reductions, which the Warsaw Pact has agreed to, calls for greater cuts in Warsaw Pact equipment holdings than in NATO holdings, the resulting parity will improve the chances of NATO terminating a European war on terms favorable to the U.S. Since January, the NATO proposal for equipment reductions has remained virtually unchanged. The proposal on personnel has changed somewhat, with U.S. and Soviet troops in the central zone to be reduced to 195,000, while the U.S. will have the right to station 30,000 troops outside the central zone. [Deleted]

Question: General Galvin, has the NATO Alliance determined how the equipment and personnel reductions under CFE will be allocated among all the Allies? Which Allies may receive equipment relinquished by other Allies?

Answer: Through the NATO Harmonization process, equipment reductions within the Alliance will be taken on a fair share basis. Determination of actual cuts is part of an iterative process, based on projected active forces, war reserves and storage requirements. As a result of this process, after the CFE agreement is implemented, each member of the Alliance will have a percentage of equipment, relative to Alliance totals, very close to the percentage held before reductions were taken.

Personnel reductions apply only to the stationed forces of the U.S. and the Soviet Union. Allies would not be required to reduce their military personnel as a result of the current NATO CFE proposal.

Equipment to be transferred within the Alliance is basically dependent upon what equipment is desired and what is available. Equipment to be transferred will include tanks, armored personnel carriers, artillery, and some aircraft. [Deleted]

Question. What are the military problems, risks and benefits to NATO from CFE's very intrusive inspection and verification regime?

Answer. The benefit of intrusive inspection and verification is that our level of confidence in our security is significantly enhanced. Verification should be an indispensable aspect of any arms control treaty. Verification measures are the means by which we can determine for ourselves whether or not the other side is complying with the treaty. Without intrusive inspection and verification methods, our certainty about treaty compliance would be significantly diminished, and our warning of preparations for military action would be less precise. Verification provides us access to installations and activities which we would not have in the absence of arms control treaties, access which we have been denied throughout the history of our relationship with the Soviet Union.

At the same time, there are some risks and problems with intrusive verification. Warsaw Pact inspectors may discover something they did not already know about our military which, if adopted to their own use, would improve their readiness, or which would reveal secrets about our forces or equipment. I believe this is a relatively small risk. The nature of our open society is such that the public at large already can obtain information about our installations and activities. In one way or another, a great deal of the information which a Warsaw Pact inspector can learn during an inspection would be available through other information sources available in the public domain.

On balance, I feel the positive aspects of an intrusive inspection and verification regime sufficiently outweigh the military risks.

GERMAN QUESTION

Question. What would be the impact on NATO if a unified Germany chose or was directed by other nations to leave NATO?

Answer. The impact on NATO would be significant. The costs associated with the relocation of forces would far exceed NATO's infrastructure budget. Germany's withdrawal of its monetary contribution to the infrastructure program would halt planned improvements for NATO's forces. Additionally, relocation costs of forces from Germany would be significant to the affected nations. The US would have to withdraw large standing ground and air forces and prepositioned equipment. I anticipate ongoing two plus four talks will lead to a united Germany remaining a member of NATO.

Question. One possible compromise may be for Germany to remain within the NATO alliance, but be demilitarized. What alternatives are you examining regarding a demilitarized Germany?

Answer. We believe it is essential that a unified Germany be a full member of the NATO alliance. This will contribute to regional stability and enhance the security of all nations concerned. As witnessed from the Treaty of Versailles, a demilitarized Germany does not contribute to either goal, and does not present a viable option for any nation or alliance to pursue.

Question. If Germany is demilitarized would the U.S. forces return to the U.S. or be redeployed within Europe?

Answer. Regardless of Germany's military status, U.S. forces will remain in Europe as long as they serve the interests of the U.S. and NATO. U.S. presence is essential to provide regional stability, contribute to deterrence, provide a nuclear link to the U.S., show support for the NATO alliance, and promote U.S. interests.

Question. What other countries may be likely sites for redeploying Western troops from Germany?

Answer. All NATO nations that currently have U.S.forces stationed in them are likely sites for people who may have to redeploy. Final determination will be based on political, military, and economic considerations.

STATIONING U.S. FORCES IN FRANCE

Question. Has the French Government indicated any willingness to consider stationing U.S. forces in France?

Answer. [Deleted].

GERMANY AND DEMILITARIZATION

Question. Has Germany indicated that it will accept or oppose demilitarization?

Answer. The FRG government, by its continued support of membership in NATO, has repeatedly demonstrated that it opposes demilitarization. The strong commitment to maintaining sufficient defense forces integrated in the Alliance has not changed. However, both our nations have agreed that after unification there will be no Allied forces, other than German, stationed in what is now East German territory.

NATO ALLIED DEFENSE SPENDING

Question: Are "burdensharing" efforts by the U.S.to get NATO allies to spend more to support U.S. forces impractical in this environment?

Answer: [Deleted]

10 DIVISIONS IN 10 DAYS

Question. How will our sealift or airlift requirements be changed if the "10 divisions in 10 days" requirement is relaxed?

Answer. The post-CFE airlift and sealift requirements are a function of the level of forces and their support that remain in Europe, the forces that need to deploy, and the amount of time available to respond without being the first nation to violate the CFE Treaty. This is an important issue which we are carefully studying because, with a smaller in-place force, it is clear force generation will take on greater importance in the post-CFE environment.

Question. Under the potential CFE agreement, will our POMCUS sets be completed at 4 sets? Or will we continue to fill equipment for 6 sets?

Answer. The potential CFE agreement does not significantly affect the size of the POMCUS program. The key deciding factors will be the post-CFE security requirements, response time, political and economic support for POMCUS site construction and maintenance, and the post-CFE Army force structure. As with the sealift/airlift question, we are actively working this issue.

DEPLOYMENT AND STATUS OF SOVIET FORCES

Question. General, your statement notes that Soviet forces have been leaving Czechoslovakia, Hungary and Poland as announced. Could you please elaborate? How many troops and divisions have been withdrawn?

Answer. [Deleted]

Question. General Galvin, in your professional opinion, how do the NATO (including the U.S.) and Warsaw Pact (including the U.S.S.R.) forces compare at this time.

Answer. The Warsaw Pact is experiencing a fundamental transformation. Over the course of this past year or so, it has changed from being primarily a military alliance to an alliance held together for and dictated by political and economic exigencies. For all intents and purposes, the Warsaw Pact as a military alliance is nonexistent. The Soviets certainly would not consider the Non-Soviet Warsaw Pact (NSWP) forces reliable for theater offensive operations. After President Gorbachev's December 1988 unilateral reductions announcement, all NSWP countries with the exception of Romania announced their own military cuts and reorganization. As a result, NSWP forces are becoming smaller, with a higher proportion of low-readiness formations. All NSWP countries are also reducing their periods of conscription, which will negatively affect the professionalism and expertise of their respective forces. Further, the East Europeans are not adopting the relatively ambitious Soviet program to modernize and improve the residual force structure.

[Deleted] All these factors reflect a trend toward less capable NSWP forces. Soviet forces themselves are also in a state of flux as widespread unilateral reductions and reorganizations continue. So far this year, the ongoing withdrawal of Soviet forces from Hungary and Czechoslovakia has required much attention and many assets to accomplish. [Deleted]

Question. What is the timetable for complete withdrawal from Hungary and Czechoslovakia? When would you expect Soviet forces ultimately to be withdrawn from Poland and what now is East Germany?

Answer. The Soviets have agreed to withdraw all their forces from Czechoslovakia in three phases:

[Deleted]

In regard to the second part of your question, if German unification occurs before the end of this year as expected, one of the first orders of business for the unified Germany will be a negotiated bilateral treaty with the Soviet Union governing the withdrawal of all Soviet forces. Right now, our best estimate is that a total withdrawal will take between three and seven years, and will largely be dependent on the Soviet Union's ability to assimilate those forces. Regarding Poland, although agreement could be reached for partial withdrawal of Soviet forces, Polish concerns over German unification will inhibit them from seeking a total withdrawal of Soviet forces anytime soon. Also, we believe the Soviets prefer to maintain some military presence there as long as they maintain forces in Germany. This presence may no longer be necessary (from a Soviet point of view) or politically desirable after all Soviet forces are withdrawn from Germany. Complete withdrawal of Soviet forces from Poland could take place in concert with the last forces withdrawn from Germany or shortly thereafter.

Question. Have Soviet forces taken on a more" defensive" posture as President Gorbachev proposed in his U.N. speech in December 1988?

Answer. The Soviets are progressing toward a conventional force structure and deployment which is more defensively orientated than in the past. These steps are apparently in line with their declared new defensive doctrine and their concept of reasonable sufficiency. Changes also reflect a very real Soviet need to reduce military spending to redirect scarce resources into faltering civilian sectors. Soviet withdrawals from Eastern Europe and other reorganizational activities should reduce the threat of a short-notice, unreinforced Soviet attack against NATO, while reducing their ability to generate forces rapidly for a conventional reinforced theater attack. For example, the Soviets are reducing the number and size of Soviet tank formations, and increasing the number and capabilities of motorized rifle, anti-tank and air defense units. These changes are improving Soviet defensive capabilities, while constraining their most obvious symbol of offensive power, the tank. Soviet training, both in military schools and in unit exercises, is also apparently reflecting defensive themes to a greater degree. However, it must be recognized that, in spite of these changes, the USSR still retains the largest military in Europe. Soviet military forces are improving their defensive capabilities, while still retaining significant offensive capabilities. Although the traditional conventional threat to Western Europe has been reduced, present and future modernization programs, improved training and revised field operations could ultimately result in a future Soviet military which is far more capable and flexible than its predecessors.

Question. How have this defensive "restructuring", the changes in Eastern Europe, and the turbulent domestic events in the Soviet Union affected the ability of the Group of Soviet Forces in Germany to conduct offensive operations against NATO?

Answer. The Western Group of Forces, formerly the Group of Soviet Forces Germany, was reduced [deleted] through 1989 unilateral withdrawals. As you know, the Soviets did not withdraw all combat equipment, but redistributed much of it to units remaining in East Germany. [Deleted]

Political events in Eastern Europe have taken the greatest toll on the offensive potential of Soviet conventional forces, including the Western Group of Forces. As a result of bilateral negotiations, the Soviets' Central Group of Forces and Southern Group of Forces are rapidly being withdrawn from Czechoslovakia and Hungary, respectively. Limited reductions are also occurring in the Northern Group of Forces stationed in Poland. East German national forces are rapidly disappearing in anticipation of unification, and the Soviets can no longer rely on the participation of Non-Soviet Warsaw Pact members in offensive operations against NATO. At home, the Soviet military is reluctantly, but increasingly, becoming involved in quelling internal crises. The combined effect of these events is the isolation of the Western Group of Forces. Although it still retains significant combat potential, without reinforcement it no longer represents a major offensive threat to the NATO Central Region.

CHEMICAL MUNITIONS

Question. Under the chemical munitions agreement signed during the recent summit, does it make sense to remove the U.S. munitions at this time?

Answer. Given the reduced risk of chemical warfare in the Central Region and our commitment to the Federal Republic of Germany to remove in-theater chemical weapons (CW), we should continue with our plans to retrograde these munitions. Since artillery munitions are the only CW stored in West Germany, they cannot reach targets in the Soviet Union and could only be employed on NATO soil or on the territory of Eastern European Countries -- a significant disadvantage given the current political situation in Europe.

Question. The United States and the Soviet Union have agreed to end production of chemical weapons in the near future. In view of this agreement, why should Congress continue to fund research, development, and production of new binary chemical weapons?

Answer. Chemical weapons continue to proliferate and there are no indications that the Soviet Union is reducing its extensive R&D program for chemical/biological weapons. Therefore, research and development (R&D) on modern CW should be continued to ensure U.S. forces remain abreast of current developments in this area and in the position to resume a CW program if efforts to obtain a multilateral treaty fail. The R&D program should include funds to complete the RDT&E and Technical Data Package on the [deleted]. Failure to maintain an active R&D program, which is not prohibited in the bilateral agreement, will have an adverse effect on our deterrent posture and NBC defense programs while we work toward a global ban on CW.

Question. Given the current situation in Germany, do you foresee a scenario where U.S. forces will require chemical munitions for their own protection or for "deterrence"?

Answer. While we cannot ignore the significant CW capability possessed by the Soviet Union, the need to forward deploy these weapons as a deterrent has lessened considerably. The expected increase in warning time of Soviet buildup/attack will allow sufficient time to deploy munitions from CONUS depots if required. In recognition of the growing Third World CW threat, the U.S./Soviet bilateral agreement on CW acknowledges the need to maintain a security stockpile of chemical munitions until the participation in a multilateral treaty is deemed sufficient to allow total elimination of these weapons.

Question. Under the U.S.-Soviet chemical weapons agreement, both nations will reduce their stockpiles to 5,000 chemical agent tons each by the year 2002. In your personal, professional military opinion, is this residual level sufficient to deter or defeat a Libyan, Iraqi or Iranian chemical warfare threat?

Answer. Our militarily useful chemical stockpile [deleted] when coupled with a strong chemical defensive capability, should be sufficient for U.S. forces to limit or negate the advantages these nations might seek to gain by employment of chemical weapons and thus deter their use. However, a program to upgrade the condition and employment systems for existing munitions will be required if we are to maintain this capability for [deleted]. In addition, we must resist the urge to cut chemical defensive programs in anticipation of a CW arms control process that will take many years to complete.

EUROPEAN TRAINING EXERCISES

General Galvin, it has been reported that you have revised the NATO maneuver training concept to reduce the burden on German population and environment. It was noted that a total of 116 exercises have been cancelled and another 22 reduced in size.

Question. General, is this information correct and if so what has been the impact on force readiness and training funding requirements?

Answer. As SACEUR, I directed a study of training and exercises for Allied Command Europe (ACE) in August 1988. On 15 May 1990 the final report, referred to as the Right Mix Study, was released. As a result of this study, changes have been made to 47% of the 116 ACE exercises. This reflects the cancellation of 10 exercises, consolidation/combining of 22, reductions in length, size, and the frequency of another 22, and an addition of 2. Furthermore, the scenarios of the remaining exercises are being redesigned to reflect the rapidly changing situation in Europe.

Impact on force readiness is positive because I believe we are training smarter. We are focusing the right training at the right level. The Right Mix Study has provided a framework for training which will produce operationally capable, properly motivated forces able to accomplish NATO's mission of defense in the 1990's. The adoption of a 3 year cycle for major exercises will result in estimated cost savings of $7.5 million (US) over 6 years. Starting in 1991, the various other exercise cancellations, linkages and reductions will lead to an estimated annual savings of approximately $2.5 million (US).

Question. Which specific exercises were cancelled?
Answer. The following ACE exercises were cancelled:
BLACK HAT
CONIC FLY
IRAN
AUTUMN FORGE SERIES
ANSEL JACK
ANTLER GOLD
BANDAGE BARTER
BATTLE FIST
BEAT BLOW
BROWN BANDAGE

Question. The FY 1991 budget appears to support European training exercises at a higher level than that realized in FY 1989 or planned for FY 1990 before the recent changes. Do you expect exercises to remain at the lower level in FY 1991, and if so, what will be the additional impact on readiness and funding requirements?

Answer. The U.S. European Command (USEUCOM) Joint Training Program is currently based on an every other year, large/small concept. In the odd years USEUCOM's budget is increased, while other CINC's budgets are decreased and vice versa. In FY 1991 we have several training events which validate plans recently developed, one being the first deployment of the Norwegian Air Landed Marine Expeditionary Brigade (NALMEB) to Norway and the first use of the 7 MEB Maritime Pre-positioned Force (MPF) in the Southern Region. Both events are critical, impacting not only NATO reinforcement capability, but contingencies on the flanks. As CFE results are agreed to and units identified for reduction and relocation, the training strategy will change. However, the withdrawal of forces from Europe may make the rapid deployment of U.S. reinforcement even more critical. Also, training for operational requirements outside the central region may increase. Both of these require large transportation and O&M budgets to maintain force readiness. Although it is true that we will increase our reliance on computer simulations and decrease certain costs, there is a corresponding cost for the development, use and maintenance of computers to support exercises and training. While the future will see force reductions in Europe, training will remain expensive and we may not see an immediate or short-term corresponding decrease in funding requirements.

CHANGING NATO'S STRUCTURE AND ROLE

General Galvin, your statement stresses that the NATO Alliance will remain preeminent in Western security and is essential as the link between the U.S. and Canada and their European allies. On the other hand, there have been proposals to decrease NATO's military role and increase the security-related roles of the European Community (EC) and the Conference on Security and Cooperation in Europe (CSCE). Our own government seems to be suggesting the latter course.

Question. Are you concerned that alternative European-oriented security arrangements, including the CSCE, will not adequately protect American security interests?

Answer. The time has come to create a new European security order, one in which Europe is united, free, and at peace. In this endeavor, I believe the Atlantic Alliance will continue to be essential to the protection of both U.S. and European security interests. While some have advocated a security role for the EC, it appears this concept is still in the developmental stage, and it is unclear how U.S. interests would be addressed. An enhanced and strengthened CSCE is clearly in the interest of Europe and the U.S., and will provide for the essential participation of the Soviet Union. However, even when complemented by a strengthened CSCE, the Atlantic Alliance holds promise as a continuing guarantor of peace and stability in Europe.

Question. Do you agree that NATO's military emphasis should be reduced, and its political focus increased? Is this alternative better for U.S. security than increasing the security role of other European institutions?

Answer. The Atlantic Alliance has always been, first of all, a political Alliance. As the need for disparate emphasis on military defense against the Warsaw Pact continues to subside, it is appropriate for the Alliance to increase its political role and reduce its standing military forces. In addition to its traditional policies of military defense and political dialogue, the Alliance has now moved to include a policy of cooperation with all states and institutions who have an interest in Europe. In this regard, the Alliance will work with CSCE, the EC, and other institutions to establish the future security structure for Europe. The Atlantic Alliance will remain an essential pillar of whatever structure evolves.

Question. Could the U.S. lose its leadership position, and the Soviets gain undue influence in European affairs, if the NATO alliance is supplanted by some other European security treaty, agreement, or institution?

Answer. Although U.S. influence in European affairs is exerted through an array of agreements and institutions, the most prominent influence is the U.S. de facto leadership of the Atlantic Alliance. Should the Alliance be supplanted by a European-exclusive or European-dominated institution, I believe the whole of U.S.-European relations would be subject to change. The outcome of such a hypothesis is uncertain, but the potential for instability and greater security risks, both regional and global, is apparent. It can be assumed that the Soviet Union would seek to gain from reduced U.S. influence and move to fill a leadership vacuum in Europe. The Alliance is a stabilizing regional institution and should be preserved as a key element of any future European architecture.

Question. How can the U.S. maintain its leadership position in European security affairs and accommodate a change in the roles of NATO, the European Community and CSCE?

Answer. U.S. leadership in European affairs is sustained most visibly by our continuing military presence on the continent of Europe. Military forces signal the U.S. commitment to collective security. As the security needs of Europe evolve, U.S. economic and political leadership will become more important, and the size of our military presence can be reduced. However, an operational military capability will continue to be required to underpin U.S. leadership, and to reflect our global role as a superpower.

Question. What principal changes do you envision for the U.S.'s primary alliance relationships in Europe in the next five years, and how would they affect our national security? Do you envision an increased role in NATO for France, or the selection of a European as Supreme Allied Commander (a post usually held by an American)?

Answer. The U.S. role in NATO should remain strong during the next few years as the Alliance moves to accommodate the evolving security environment. Additionally, we should try to broaden and intensify our ties with Europe by strengthening our relationships with an enhanced CSCE and an integrated EC. These improved relationships will contribute to regional and global stability, which, in turn, will have a positive effect on U.S. national security. The return of France to the military organization of the Alliance would be welcomed. The French participate in consultative matters whenever appropriate. Regarding the selection of a European as Supreme Allied Commander in the near term, the current arrangement appears most acceptable to all member states of the Alliance.

F-15E DUAL CAPABLE AIRCRAFT

Question. General Galvin, I understand the U.S. plans to deploy one wing of F-15E aircraft in Europe. [Deleted]

Answer. The F-15E provides a much needed force multiplier to our current force structure. It joins our F-111s as the only aircraft which can deny the enemy the use of darkness for combat operations. [Deleted]

Question. General Galvin, if the F-15E is not deployed in Europe, which U.S. aircraft in the inventory in Europe can carry the SRAM-T?

Answer. [Deleted]

Question. Which of these can reach targets in the Soviet Union from their home bases without refueling?

Answer. The F-111 can reach [deleted] and recover at its home base unrefueled.

READINESS RELAXATION

Question: General Galvin, it has been reported that NATO has decided to lower its readiness requirements in Europe. This relaxation would include such items as eliminating the requirement of manned aircraft to be constantly ready to scramble against an aggressor. What other changes in readiness posture are likely to be made as a result of reduced tensions in Europe?

Answer: I would like to point out that "Readiness" was not relaxed. What you may be referring to is Allied Command Europe's (ACE) Readiness Review initiated by Supreme Headquarters Allied Powers Europe (SHAPE) last February. This review was divided into two Phases. Phase I assessed the impact of the current environment on present ACE Force Standards. The Phase I assessment was recently completed and recommended some of the current availability requirements be reduced.

[Deleted] Phase II is designed to take it one step further and look into the mid-90's, keying any adjustments on projected events that may affect capabilities and thereby impact requirements. As for changes in the future, Phase II of the ACE Readiness Review has just been initiated. It will look into the mid 90's examining changes in capabilities that may impact readiness requirements. A menu of logical adjustments will be developed which relate to possible future events. Only after events occur which impact capabilities will proposals to adjust readiness requirements be made.

Question. How will these changes affect the readiness of U.S. forces in Europe?

Answer. The Readiness of U.S. Forces in Europe remains unchanged. Phase I of the ACE Readiness Review recommended only minor changes to the present availability requirements. The new requirements send a positive signal that it is not business as usual and NATO is responding appropriately to the current environment. Once Phase II is completed, we will be better able to assess the overall effect further adjustments will have on U.S. Forces.

Question. Should similar changes be made in the readiness of U.S. based forces?

Answer. As indicated in the previous answer, once Phase II is completed we will be better able to assess its effect on U.S. based forces.

Question. What is the cost impact of these changes?

Answer. It is too early to fix a dollar savings to this process. We can only say that changes do provide nations with increased flexibility and possible cost savings.

CHANGES TO NATO'S STRATEGY

Question. General Galvin, your statement indicates that the current NATO strategy is being reviewed and will likely change. What are the principal strategy changes you envision, and how would they affect U.S. national security? What would be their likely impacts on the size, composition, and equipment of the U.S. forces needed for NATO's defense and for NATO's current basing structure?

Answer. Because the decision to review Alliance strategy occurred in late May, we are only in the initial stages of this process. It is too soon to predict what changes will result from the strategy review, or how the new strategy will affect our forces or basing. I will be providing my thoughts to the Alliance's civilian leadership within the Military Committee and Defense Planning Committee as we develop the next strategy.

Question. What are the military impacts on your operational plans, and on NATO's ability to implement its flexible response doctrine of the decision to terminate the Follow-on-to-Lance nuclear missile program and the program to modernize nuclear artillery shells?

Answer. As CFE brings NATO and WP forces to parity, the battlefield shifts from one of static defenses to a more mobile defense posture. Operational plans were already being changed to reflect this new environment. The FOTL/AFAP program decision caused little change in existing tactical nuclear weapon operations since FOTL had not yet been produced and modernized nuclear artillery shells had not yet been made available for transfer to Allied facilities (under U.S. custody). Implementation of NATO's flexible response doctrine is possible as long as the Alliance retains its robust force of dual capable aircraft (DCA). To this end, deployment of SRAM-T is essential to enhance both DCA survivability and target coverage.

Question. How can NATO's nuclear deterrent and defense capabilities be maintained adequately across all ranges and types of weapons if its short-range nuclear weapons are reduced or eliminated in the arms control talks President Bush says he is willing to begin ahead of prior timetables?

Answer. Since Lance missiles and AFAPs could be reduced or eliminated as part of a short-range nuclear force treaty, and Pershing II and GLCM are being withdrawn under the terms of the INF Treaty, NATO's land-based nuclear deterrent could consist solely of dual capable aircraft (DCA). This force will be capable of delivering weapons across the breadth of the battlefield from the forward edge of the battle to the Soviet homeland. As long as the Alliance retains a viable TASM or SRAM-T equipped DCA force, NATO's nuclear deterrent capability can be adequately maintained.

Question. NATO's Nuclear Planning Group recently asked you to review NATO's requirements for all types of nuclear weapons. What are the specific issues and weapons requirements you are assessing, and what are the emerging conclusions of your examination?

Answer. The primary issue we are addressing is the maintenance of an adequate nuclear deterrent force with as many NATO members participating as possible. Our initial analysis has shown that weapon stockpiles can be reduced from current levels while still providing an adequate nuclear deterrent posture. The cornerstone of that deterrence will be a robust dual capable aircraft (DCA) force. To insure DCA remain survivable and capable of covering the required targets, development and deployment of SRAM-T is an absolute requirement. As a major side benefit, SRAM-T will permit us to reduce the nuclear stockpile on a greater than one-for-one basis.

Question. Since the concept of a forward NATO defense at the inner German border becomes somewhat questionable when Germany reunifies, what is an acceptable military substitute? Would you favor maintaining these forward positions, even if Soviet troops ultimately leave what is now East Germany? What are the military impacts of not expanding NATO military positions and forces into what is now East Germany?

Answer. I agree that a defense along what has been called the inner German border will be impractical following German unification. Our future concept of forward defense must continue to focus on the intent of the Atlantic Treaty, that is, defense of all Alliance territory. Should all of a unified Germany be included in the Alliance, as we hope, it will be necessary to plan our defense accordingly. However, this does not mean we need to place any forces in what is now East Germany. Under these circumstances, I envision the stationing of smaller, highly mobile forces on some bases currently provided by member nations. This is a militarily acceptable concept which takes into account the legitimate security concerns of neighboring states, including the Soviet Union.

Question. Will adoption of a new NATO strategy permit the alliance and the U.S. to further reduce their forces and bases in Europe? Do you expect that future requirements for NATO infrastructure military construction funds can be reduced due to such changes?

Answer. A change in strategy alone would not trigger force reductions. Force requirements are derived both from strategy and the size and nature of potential adversaries. In this regard, we should monitor closely the withdrawal of Soviet forces and the emergence of a new order for regional stability. I believe there is a minimum operational force level required to sustain regional stability. As the future of Europe becomes more clear, we will have a better insight into required force levels. Alliance infrastructure requirements generally follow force levels and, therefore, some savings may be achieved in the long term as a result of reductions.

BERLIN BRIGADE

Question. General Galvin, the U.S. has maintained a brigade in Berlin since the Second World War. Are you planning to retain this brigade under a Conventional Forces in Europe (CFE) treaty limit of 195,000 troops?

Answer. The Berlin Brigade is a very important and visible unit whose presence makes a strong political statement of significance far beyond the mere numbers of troops and equipment stationed there. [Deleted] However, we intend to maintain a brigade force in Berlin as long as we have both the need and the legal right to be there, and as long as a unified Germany agrees that U.S. military presence is required.

Question. Would this brigade be disbanded under a reunified Germany?

Answer. [Deleted]

FRENCH AND BRITISH BERLIN BRIGADES

Question: The British and French also maintain brigades in Berlin. Are you aware of what their plans are?

Answer: We stay in close touch with our British and French allies on plans for Berlin units. I believe we can assume they will consider the same issues and requirements which we do regarding U.S. forces in Berlin.

NATO AND OUT-OF-AREA CONTINGENCIES

General Galvin, the decline in East-West tensions has once again sparked discussion of possible Third World contingencies, particularly those involving countries in the Middle East, which might involve U.S. or allied force.

Question. Has NATO updated its 1984-85 Southwest Asia Impact Study to account for the threats posed to the Alliance by the proliferation of new missile, chemical, biological and nuclear technologies in the Middle East?

Answer. The study, entitled "The Impact of Possible Deployment of U.S. Forces Outside of NATO Area", was originally a private office memorandum dated 27 October 1983. It was discussed and approved at the May 1984 NATO Ministerial meeting and released in June 1984. There has been no update to the document since then.

Question. Would you please make the Southwest Asia Impact Study available to the Committee as well as any revisions, or modifications or similar products bearing different titles.

Answer. The study was prepared at NATO headquarters in Brussels. A copy will be made available upon request of the U.S. Mission, NATO.

Question. In light of decreasing tensions in Europe and the rise of new, and possibly more dangerous threats to western security in the Third World, do you support a revision of the North Atlantic Treaty to allow NATO to meet limited out-of-area contingencies?

Answer. Since signature of the NATO Treaty in 1949, the Allies have resisted conducting any operations beyond the Treaty boundaries. The political impact of trying to define, in advance, the parameters of such a question could be overwhelmingly divisive to the Alliance. There would be little advantage to either the process or outcome of such a debate. However, let me add that I would not want to foreclose the possibility of [deleted]

COST OF CFE COMPLIANCE

Question. What is your best estimate of the cost of complying with the proposed CFE Treaty?

Answer. There are many parts to compliance, and several U.S. organizations will share the costs of implementation. Destruction costs borne by the U.S. will depend upon how much excess U.S. equipment is eventually transferred to other Allies through the NATO Harmonization process. Destruction methods and associated costs have not been resolved.

[Deleted]

includes costs for facilities, payrolls, contracts, training, and the like, plus a high side estimate of the number of inspections to be conducted.

A third major cost will result from theater compliance, involving closing bases, co-hosting inspections, moving troops and their families back to the United States, and restructuring the residual force. Costs for this will be spread over several years, as the U.S. implements its phased reduction program. USAREUR cost estimates are being prepared now, while the recently completed

[deleted]

Question. How will these costs be budgeted and what portion will be assumed by each of the services?

Answer: The method of budgeting for future treaty implementation costs, including CFE, is being studied now by the Executive Branch. Pending completion of that study, a determination of the approach to budgeting and the portion of CFE costs which will be born by the Services cannot be made.

Question. Will the allies contribute any funds toward the destruction of withdrawn CFE equipment? Will any centrally managed NATO funds be used for this purpose?

Answer. The issue is being worked at NATO. The NATO Maintenance and Supply Agency (NAMSA) is doing a study to determine costs associated with CFE TLE transfer and destruction and to identify the lowest cost alternatives. All nations are providing information for the analysis. The earliest we expect results and recommendations from the study is August 1990. The United States is supporting an OSD proposal that NAMSA serve as executive agent for CFE TLE transfer and destruction, and also supports the SHAPE concept of using NATO funding to pay for TLE destruction and associated transportation of TLE.

Question. Have you addressed the environmental issues associated with CFE weapons destruction?

Answer. We're all conscious of the potential for adverse impacts to the environment associated with the destruction of CFE weapons. Whatever equipment we must destroy, we intend to do in compliance with appropriate environmental standards.

Question. Will any equipment be destroyed in Europe or will it all be transported back to the United States for ultimate disposal?

Answer. This issue is not yet resolved and is being considered both at NATO and in Vienna. Wording of the CFE treaty may simply state that equipment will be destroyed without stipulating where it will be destroyed. However, the treaty may require equipment destruction in theater. If so, then no TLE will be returned to the United States for destruction. The parts, pieces and scrap resulting from destruction may be brought back to the United States for ultimate disposition, depending on residual value.

LOW-LEVEL FLYING

Question. General Galvin, our Air Force has had increasing difficulty finding air space in Europe where it can practice low-level flying. The situation has been made worse by increased German restrictions in the wake of several highly-publicized crashes in recent years. What low-level training alternatives are you actively exploring for the Air Force both inside and outside of the European theater?

Answer. We are actively seeking to export additional low-level training from Germany. Alternatives include increased deployments to "Flag" type exercises in the U.S., squadron deployments from Europe to Alaska, and increased low-level flying during weapons training deployments in theater.

Question. Will the proposed CFE reductions in forward deployed U.S. aircraft obviate the need to look outside Europe for new air space in which to train?

Answer. No. The current political climate indicates the opportunity to perform low-level training may soon be further restricted. It is prudent to anticipate this situation and continue to seek suitable alternatives for low-level training both in and out of Europe for forces remaining after CFE implementation.

WEST GERMANY AND WEAPONS TECHNOLOGY TRANSFER

Question. General Galvin, numerous reports have surfaced over the years linking West German companies to the illegal export of nuclear, biological and chemical weapons technology to unfriendly or nonaligned third world countries. In particular, there are allegations that German businessmen have provided Iraq with highly toxic nycotoxins for use in the development of biological weapons. Other reports hold that valuable missile components have been transported to Libya via a firm in northern Baden and that the Government has even permitted the export of beryllium to India. Beryllium is used for constructing atomic bombs. What success have you had in persuading its European allies to staunch the flow of nuclear, biological and chemical weapons technology to the third world, particularly countries hostile to western interests?

Answer. I believe that each NATO nation understands that the continued proliferation of nuclear and chemical weapons, and the missiles which deliver them, poses threats to the new security environment emerging in Europe. Secretary of State Baker, in his Prague speech in February 1990, noted that "as a security alliance among sixteen like-minded democracies, NATO should consider how it might facilitate collective action against non-traditional threats -- such as proliferation and regional conflicts."

The United States has proposed that NATO's Political Committee, in association with other appropriate bodies, begin to address the problems of nuclear, chemical/biological and missile proliferation and how they relate to NATO's security. The US approach is for NATO to conduct an integrated review of how these diverse forms of proliferation impact on NATO interests and, after such a review, for NATO to examine possible responses.

Question. What, if any, new steps do you believe the United States and its allies ought to take to control the export of nuclear, biological, chemical or ballistic technology?

Answer. Secretary Baker, in his December 1989 Berlin speech, pointed out the common NATO interests in meeting this threat. This approach will help NATO play an active role in developing a response to the political and security threat which proliferation poses.

FRANCE MOVES CLOSER TO NATO

General Galvin, there are reports that France has decided to open talks on participation in NATO's new air defense and command system. This decision, authorized by President Mitterrand earlier this year, is likely to inch France into closer coordination with NATO groups in Brussels, but without alerting French refusal to be part of the alliance's integrated command under a U.S. general.

Question. Is there any likelihood that France will return to full participation in NATO?

Answer. Although there is [deleted] the French National Assembly political parties stated on 8 April 1990, that France should not rejoin that structure until NATO is "Europeanized." France believes that European solidarity requires the willingness of every European partner to contribute its entire military potential for the others. Because of the need to review NATO's military strategy in light of the changed security situation, I believe France's defense posture vis-a-vis the future of the Alliance could become a topic of discussion. We'll just have to wait and see if evolutionary changes are acceptable to France's views and vice versa.

Question. At a time when East-West military tensions are decreasing, why is France now moving closer to NATO.

Answer. France sees a number of political, military, financial and industrial advantages in binding herself closer to NATO. In a changing Europe, France wishes to be in a position to accept a leadership role should the U.S. withdraw and the Alliance alter its strategy.

Question. How has the cost of the new NATO air command network been distributed among the allies?

Answer. NATO air command network costs have been distributed among the nations in accordance with the agreed to Infrastructure and Military Budget Committee cost shares. For projects with French participation, costs are shared "at 15" while all other projects are shared "at 14."

Question. How does this system differ from the NATO Air Defense Ground Environment (NADGE)?

Answer. The NATO Air Defence Ground Environment (NADGE) is designed for air defence only and is largely based on aging technology. The Air Command and Control System (ACCS) will provide capabilities for combined defensive, offensive, and support air missions and will be based on state of the art technology. Where feasible, NADGE components will be retained and incorporated into the ACCS.

Question. What portion of the cost of this new system has been paid for out of the NATO Infrastructure Fund?

Answer. Although many ACCS associated radars, facilities and studies have been completed through NATO common funding, it is not possible at this time to quantify that portion of the total system which has been paid for by NATO Infrastructure because the scope and criteria of what will ultimately be ACCS are subject to further definition and review.

IRAQ IN AFRICA

General Galvin, there are numerous reports that Iraq is lavishing weapons and installing advisers from Mauritania to Chad and from Sudan to Djibouti -- what is now being called the "crisis crescent" of the Sahel. There are reports, for instance, that Iraq is developing a missile testing range in Mauritania and has supplied the government with SAM-7 anti-aircraft missiles, mortars and munitions. Iraq, it appears, may also be behind covert weapons shipments to Mali, Senegal, Somalia and Zambia.

Question. What threat do these developments pose to U.S. interests in Africa?

Answer. Such Iraqi arms shipments threaten to undermine the U.S. goals of peace and stability in Africa. Arms shipments increase Iraqi influence, which often runs counter to such U.S. interests as normalization of relations with Israel and counter-terrorism.

Question. How is the United States and its allies responding to the expansion of Iraqi influence into Africa?

Answer. [Deleted].

Question. What, do you believe, is Iraq's ultimate intention in Africa?

Answer. Iraq ultimately hopes to expand its political influence in Africa. Baghdad will focus on Islamic nations and those with an Arab character with the main goals of countering Iranian and Israeli influence and reducing its international isolation. Iraq is one of the "middle level" world powers trying to fill the gap left by diminishing superpower competition in the Third World.

Question. What U.S. assets could be endangered if Iraq established a missile launch facility in Mauritania?

Answer. The U.S. has no military facilities in the region which could be threatened by Iraqi surface-to-surface missile deployment in southeastern Mauritania. [Deleted]

LIBERIA

Question. General Galvin, I have been closely monitoring the developments in Liberia and am concerned that the United States may find itself caught in a tribal conflict on the continent of Africa. Is the United States now providing any military or intelligence assistance to General Doe?

Answer. No, the U.S. is not providing such assistance to Doe. In the past the U.S. has had a close military and political relationship with Liberia. [Deleted] However, with increased human rights abuses, corruption and loan defaults under the Doe government, we have ceased all military assistance. We still have a two man security assistance and defense representative office in Liberia, but no military equipment is being delivered and no assistance in fighting the current conflict is being provided.

Question. Does the United States have any intention to assist General Doe in repulsing rebel attackers if American lives are endangered, or in providing defensive cover as we did during the last coup attempt in the Philippines?

Answer. No. U.S. forces are deployed off the coast of Monrovia in case the situation worsens and the remaining U.S. citizens and other nationals need to be evacuated, not to engage in hostilities on behalf of either the Government of Liberia forces or the opposing National Patriotic Front of Liberia rebel forces.

Question. Can you confirm reports that Libya is supplying the Liberian rebels with weapons? If so, what types of weapons and in what quantities?

Answer. [Deleted]

U.S. TROOP LEVELS IN NATO EUROPE

Question. General Galvin, you say that the U.S. can reduce further its European troop levels below the current CFE levels of 195,000 in the Central Zone and 30,000 elsewhere -- as Soviet forces get smaller and move eastward. The Chairman of the Armed Services Committee recommends a reduction to 75,000 - 100,000 personnel during the next five years. Former Defense Secretary James Schlesinger believes the U.S. can meet its security needs and remain engaged in Europe with only 50,000 - 75,000 troops. General, how low can we go in European troop levels and still protect our national security?

Answer. In their February 90 meeting in Ottawa, NATO and Warsaw Pact leaders agreed to U.S. and Soviet personnel limits for Europe. We need 225,000 soldiers and airmen to provide the level of American capability necessary for credible deterrence. I believe the 195,000 level for American soldiers and airmen in Central Europe with an additional 30,000 soldiers and airmen in the remaining portion of the Atlantic to the Urals region is currently the correct level.

Further force reductions should be based on our need to maintain parity between NATO and WP forces, meet other security requirements, and comply with legitimately derived agreements. There will be many complex variables such as the stability of Eastern Europe, the future European collective security structure, and the economic and political concerns of both the U.S. and our Allies. All will influence how low we can go in European troop levels. I am satisfied with our progress to date.

CFE TREATY

Question. The 1990 Joint Military Net Assessment by the Chairman Joint Chiefs of Staff states the U.S. has examined alternative reductions in forces beyond the initial CFE proposals. What were the alternative force levels examined, and what were the military impacts associated with each?

Answer. The 1990 Joint Military Net Assessment was prepared by the Joint Chiefs of Staff and reflects conditions as of the end of January 1990. It assumes a defense program with an approximate two percent annual real decline in resources. I would have to defer to the Joint Staff concerning the details of the alternate analyses they performed.

U.S. TROOP LEVELS IN NATO EUROPE

Question. What would be the most prudent timetable for reducing our European troop levels? Have you assessed whether any reductions now programmed for fiscal 1992 can be accelerated into fiscal 1991? What would be the budget savings associated with such an acceleration?

Answer. U.S. reductions should occur on a schedule determined by the provisions of a CFE treaty, devised in concert with our allies, and linked to the force reductions of the Soviet Union.

We must recognize the withdrawals we finally decide to make from Europe will be much larger than any we have implemented previously. A great deal of effort and coordination is required among our own forces and the governments of our host states. As a result, there are practical limits to our ability to accelerate reductions. I think our current planning is on track and I see no benefits to accelerating reductions.

With respect to budget savings associated with reductions, there certainly will be long-term budget savings as we drawdown our presence in Europe. However, in the short term, there will be costs associated with CFE treaty implementation: redeployment of units, destruction of equipment, transfer of equipment to allies, and establishment of verification regimes. Acceleration of the reduction process could increase these near term costs.

TRIPLE ARMOR FOR SOVIET TANKS

General Galvin, last year a delegation from the House Armed Services Committee visited the Soviet Union and reported that T-72 tanks were being reenforced with triple-layer armor. Soviet tanks, already a headache to NATO anti-tank planners because of a layer of reactive armor, will now pose an even more ominous threat.

Question. Has our Army tested the success of the tandem-charge shell against a triple-layer armor threat? If so, what have the tests demonstrated?

Answer. Testing at the Foreign Science and Technology Center has demonstrated that [deleted] The Army Staff is in a better position to provide you with more detailed information should you desire it.

Question. When did the United States first discover the existence of the Soviet triple-armor threat?

Answer. Triple-layer reactive armor on Soviet tanks was first discovered during a House Armed Service Committee visit to a motorized rifle division in the western USSR in August 1989. The Committee was shown a number of T-72 tanks equipped with reactive armor boxes, fitted into a new two and three layer array across the turret front, sides, and top. Although these multiple arrays are relatively new, the Soviets have fitted single layers of reactive armor on T-72 and T-80 tanks for several years. In an effort to counter the single layer reactive armor arrays, U.S. and other NATO countries began developing and fielding tandem warhead munitions. These dual warheads have a smaller charge which detonates the reactive armor, and a second, larger, shaped charge which then penetrates the tank's unprotected basic armor. However, the observed and postulated future improved Soviet stacked reactive armor arrays appear to have been designed to defeat such munitions.

Question. Has the new generation of NATO tanks been designed to equal or exceed the triple layer technology built into the latest Soviet tanks?

Answer. Yes, national programs of tank producing countries in NATO have more than met the Soviet challenge through fielding of technologically advanced armor. Details of national programs are unavailable to SHAPE. Each nation has exploited technology differently to meet specific requirements. You can see evidence of the NATO commitment to meet the changing challenge through the upgraded variants of modernized tanks currently being fielded.

Question: Will the new class of anti-tank weapons such as the TOW-2B missile and the helicopter fired Hellfire missile, effectively counter the Soviet triple-layer armor threat?

Answer: [Deleted]

QUESTION SUBMITTED BY SENATOR BYRD

NATO'S MILITARY STRATEGY

Question. It is generally accepted that the nature of the military threat facing NATO has radically altered within the last few years. A conventional arms control agreement in Europe is expected this year, the Warsaw Pact is carrying out unilateral military reductions, and the nations of Eastern Europe are demonstrating increasing political independence. Some observers believe these developments will require a major reevaluation of NATO's military strategy and the forces required to implement it. What efforts are underway at your headquarters to assess and recast NATO's military strategy?

Answer. On 14 June 1990, NATO's Military Committee established a Military Strategy Working Group at staff level with the task of developing and coordinating the military contributions to the review of Alliance strategy. The working group is comprised of military experts from the nations, the staffs of the major NATO Commanders and the International Military Staff. SHAPE has a team of officers on this working group. Additionally, the SHAPE staff is considering strategy implications as it reviews its own areas of expertise. I also [deleted] an Allied Command Europe perspective.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

JOINT SURVEILLANCE TARGET ATTACK RADAR SYSTEM (JSTARS)

Question. What changes, if any, do you anticipate in requirements for JSTARS in a post-CFE environment?

Answer. The current requirement is for surveillance and targeting information on forces opposing ours. As accuracy and range of our standoff weapons increases, the requirement for timely information on force disposition becomes greater. In a post-CFE environment, we anticipate a reduced number of highly mobile forces more widely dispersed over the battlefield. The ability to locate, identify, and track forces in such an environment becomes more critical. We must quickly determine force disposition so we can effectively employ our own limited forces in a focused, precise manner. Joint STARS Moving Target Indicator and Synthetic Aperture Radar will provide near-real-time targeting accuracy over large areas of the battlefield. It will allow commanders to determine which potential targets are more valuable to achieve their desired results. Requirements for non-intrusive, stand-off surveillance to provide situational awareness and targeting information during crisis or contingency remain unchanged after a CFE agreement. Joint STARS will also be able to provide indications and warning especially in this time of instability and to assist verification and compliance monitoring over its range of coverage, although exact requirements and capabilities are still to be determined. In summary, the requirements for near-real-time surveillance and targeting capability, particularly of moving forces, will increase in a post-CFE environment. Joint STARS meets those requirements.

DENUCLEARIZATION OF EUROPE

Question. During the INF Treaty ratification debate, there were dire warnings that the INF Treaty would lead to the inevitable denuclearization of Europe. We now seem to be moving rapidly in the direction of a third "Zero Option". What impact will this have on NATO's security?

Answer. Once conventional force parity is achieved in a CFE accord, reductions in the nuclear stockpile will be a logical next step. However, nuclear weapons cannot be "disinvented." Total denuclearization of Europe could once again make conventional conflict feasible and therefore makes deployment of nuclear weapons necessary, even at reduced levels, to demonstrate NATOs resolve and solidarity.

DEPLOYMENT AND STATUS OF SOVIET FORCES

Question. The pace and scope of Soviet tank modernization will likely drive congressional decisions
S/NF/WN regarding the procurement of the M-1A2 or the retrofitting of M-1s into either M-1A1s or M-1A2s. How do you see Soviet tank modernization unfolding over the next decade?

Answer. [Deleted]

SUBCOMMITTEE RECESS

Senator **Inouye**. Our next hearing will be on June 12 at 9 a.m. in SD–192. At that time, we'll hold our wrapup hearing with the Secretary of Defense. It will be in open session.

Thank you very much, General.

General **Galvin**. Thank you, Senator.

[Whereupon, at 10:40 a.m., Thursday, June 7, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

LIST OF WITNESSES, COMMUNICATIONS, AND PREPARED STATEMENTS

Page

Bumpers, Hon. Dale, U.S. Senator from Arkansas, questions submitted by ... 37, 70, 109, 134, 196, 384, 470
Byrd, Hon. Robert C., U.S. Senator from West Virginia, questions submitted by ... 33, 67, 108, 131, 189, 251, 301, 368, 382, 470, 527

Chain, Gen. John T., Jr., Commander in Chief, Strategic Air Command, and Director, Strategic Target Planning ... 325
  Prepared statement ... 327

D'Amato, Hon. Alfonse M., U.S. Senator from New York:
  Prepared statement ... 243
  Questions submitted by ... 41, 74, 252, 303, 387, 473, 528
DeConcini, Hon. Dennis, U.S. Senator from Arizona, questions submitted by ... 35, 68, 132, 190

Galvin, Gen. John R., USA, Commander in Chief, U.S. European Command ... 475
  Prepared statement ... 479

Hardisty, Adm. Huntington, USN, Commander in Chief, U.S. Pacific Command ... 1
  Prepared statement ... 4
Harkin, Hon. Tom, U.S. Senator from Iowa, questions submitted by ... 302

Inouye, Hon. Daniel K., U.S. Senator from Hawaii, questions submitted by ... 22, 61, 98, 126, 174, 247, 277, 364, 371, 456, 508

Johnson, Gen. Hansford T., USAF, Commander in Chief, U.S. Transportation Command ... 111
  Prepared statement ... 113

Kelso, Adm. Frank B. II, Commander in Chief, U.S. Atlantic Command ... 77
  Prepared statement ... 80

Leahy, Hon. Patrick J., U.S. Senator from Vermont, questions submitted by ... 383
Lindsay, Gen. James, U.S. Army, Commander in Chief, Special Operations Command ... 255
  Prepared statement ... 261

Menetrey, Gen. Louis C., USA, Commander, U.S. Forces Korea ... 43
  Prepared statement ... 44
Monahan, Lt. Gen. George L., Jr., Director, Strategic Defense Initiative Organization ... 389
  Prepared statement ... 427

Rudman, Hon. Warren, U.S. Senator from New Hampshire, questions submitted by ... 135

Schwarzkopf, Gen. H. Norman, Commander in Chief, U.S. Central Command ... 137
  Prepared statement ... 138
Specter, Hon. Arlen, U.S. Senator from Pennsylvania, questions submitted by ... 110, 136, 198

Thurman, Gen. Maxwell R., U.S. Army, Commander in Chief, Southern Command ... 201

Page
Watkins, Adm. James D., U.S. Navy (retired), letter from 344
Wolfowitz, Hon. Paul, Under Secretary for Policy, Department of Defense 311
  Prepared statement 317

SUBJECT INDEX

DEPARTMENT OF DEFENSE

Office of the Under Secretary of Defense for Policy

STRATEGIC NUCLEAR DETERRENT OF THE UNITED STATES

Page
- Advance warning, 351
- B-1 testing, 338
- B-2 bomber:
  - CINCSAC on, 335
  - Cost of, 335
  - Flight tests, 354
  - Role of, 361
- Bomber force structure, 338
- Chairman Inouye, comments by, 334
- Changes, recent, 314
- Committee questions, additional, 363
- D-5 missile, status of, 337
- ICBM modernization program, 315
- Long-term implications, 313
- MIRV missiles, 351
- Mobility and stability, relationship between, 359
- MX rail garrison, 353
- MX versus small ICBM, 336, 357
- Negotiations:
  - Results of, 348
  - Status of, 339
- Rail garrison, value of, 340
- Savannah River, 345
- SDI, status of, 342
- Secretary Wolfowitz, presentation of, 312
- Soviet Union:
  - Dispute on strategic modernization, 358
  - Status of, 313
  - Strategic modernization, 340
- Stealth detection, 362
- Strategic:
  - Materials, 343
  - Targets, 356
  - Versus conventional, 341
- Submarine status, 349
- Survivability, importance of, 358
- Transfer, status of, 347
- Triad, 314
  - Of forces, 326
  - Submarines, 315
- Trident missile production, 357
- World instability, 326

Special Operations Command

- Committee questions, additional, 276
- Deployment, 274
- Equipment, 258
- Force structure, 258

Page
Intelligence 269
Joint mission analysis 260
Mediterranean 275
Operation Just Cause 256
Operations and maintenance 260
Panama 268
Programming, budgeting, and acquisition 259
Readiness of our forces 257
Statement, synopsis of 255
Strained relations 272
Talon II 273

STRATEGIC DEFENSE INITIATIVE

Absentee rate 447
Advanced tactical fighter 424
AMRAAM 446
Avionics technology spinoffs 423
Ballistic missile defense challenges 392
Boost phase engagement 395
Boost surveillance tracking system 453
Brilliant Pebbles:
    Acquisition approach 405
    Activating 444
    Defense Science Board report on 403, 440
    Deployment of 440
    Initial test program 407
    Interceptor 402
    Review Jasons' conclusions 404
Committee questions, additional 455
Communications component development 414
Compact accelerators 419
Computer advances 415
Coordinated national effort 390
Countermeasures 445
Defensive strategy—United States versus Soviet Union 446
Diamond materials 421
Directed energy program 401
Fiscal year 1991 program 391
Focal plane producibility 416
Gel technology spinoffs—Controlled ejection 424
HEDI:
    Lateral thrusters 418
    Program 400
Inertial measurement technology 413
Interceptor, ground-based 448
IR tracking of booster target 410
Laser:
    Radar 417
    Technology application 420
LEAP seeker technology 422
Miniature inertial measurement unit 414
Narrow versus broad 441
On-target free flight 409
Parallel processing technology 412
Patents 438
Planned contract phases 406
Program changes, fiscal years 1990–91 399
SDS:
    Phase 1 ....
        Architecture 394
        Cost reductions 397
        Program 393
    Program schedule 396
Sensors, abandoning 447

Page

Soviet:
  Advantage ... 442
  Visit to laser test site and Los Alamos ... 451
Space-based interceptor ... 452
Strategic defense initiative:
  And Third World ... 451
  Fiscal year 1991 program ... 398
  Freeze on growth ... 450
Technical accomplishments, major ... 408
Technology integration ... 411
United States/Israel antiballistic program ... 449

U.S. Atlantic Command

Airlift and sealift ... 92
CINC initiatives fund ... 87
Colombia, President's trip to ... 88
Committee questions, additional ... 97
Counternarcotics ... 86, 94
Cuba ... 85
Deployments and commitments ... 79
Focus of hearing ... 78
NATO contributions ... 86
Personnel ... 79
Security assistance ... 88
Soviet naval:
  Activities ... 85
  Modernization ... 92, 96
Statement summary ... 78
Threat undiminished ... 80
U.S. naval forces, requirements for ... 86

U.S. European Command

Base closures ... 487
C-17 ... 496
Chemical weapons destruction ... 487, 492
Committee questions, additional ... 507
Conference on Security and Cooperation in Europe ... 477
Conventional forces Europe ... 483
Crotone ... 478, 507
Flying, low-level ... 490
General officer transportation ... 489
German reunification ... 486
Gorbachev difficulties ... 495
Intelligence:
  Failings ... 499
  Structure ... 489
Lance missile ... 489, 506
NATO:
  Alternative to ... 493
  French role in ... 495
  Strategy ... 497
Nuclear first use ... 502
Nunn speech ... 500
Peace dividend ... 476
Post-CFE threat ... 477
Post-WWII situation ... 505
Quality of life ... 478
Soviet perspective ... 498
Soviets, areas of agreement with ... 484
Statement highlighted ... 476
Strategic lift ... 506
Ten in ten ... 487
Unilateral force reductions ... 486
Warsaw Pact viability ... 493

Page

U.S. CENTRAL COMMAND

Ballistic missiles in the Middle East 169
CENTCOM, abolition of 166
Chemical warfare 171
Chinese sale of missiles 167
Committee questions, additional 173
Egyptian armor capability, upgrade in 168
Libya and Israel not in command area 167
Soviet equipment, transfer of excess 168

U.S. FORCES KOREA

Arms buildup 43
Balance of trade and GNP 52
Base closures 50
Committee questions, additional 60
Future stability, likelihood of 55
Korean equipment, state of 51
Korean people favor United States presence 50
North Koreans irrational 59
ROK Government, stability of 54
2d Infantry Division, role of 53
Strategic value of peninsula 54
Threat assessment, revised 58
Troop pullout 56
U.N. presence 60
U.S. presence, cost of 57

U.S. PACIFIC COMMAND

Base relocation study 18
Committee questions, additional 21
Force structure 17
Japan 15
    Cost sharing 16
    Power protection 17
Joint Task Force 5 and drug interdiction 19
Okinawa 15
Pacific Command strategy 3
Pacific, deployment in the 14
Philippines 10
    Basic agreements in 12
    Endemic problems in 12
    Secretary Cheney's visit to the 13
    United States interest in 13
Threat, the 3

U.S. SOUTHERN COMMAND

Airborne troops 230
AK-4F 238
Andean Ridge 209
Area of responsibility 204
Budget, fiscal year 1991 220
Caribbean basin radar networks 214
Central America situation 207
Chain of command 224
Committee questions, additional 246
Counternarcotics:
    Program 215
    Strategy 211
Drug situation 210
Equipment, performance of 237
Ghetto blasters in Papal Nunciatura 233
Incidents, recent 225
Just Cause personnel 229
Lessons learned 223

Page

Marine light assault vehicle 238
Near-term objectives........ 217
  Fiscal year 1991 208
New force, size of 236
Panama Canal:
  American dependents in 242
  Renegade forces in 239
Panamanian forces, new........ 234
PDF and civilian casualties 238
Public security forces 227
Reconstitution process........ 244
Regional concerns 206
7th Infantry Division........ 241
Southern Command regions........ 205
Special forces detachments 237
Strategic objectives 203
Tactical air support 232
Tactical compromise........ 245

U.S. TRANSPORTATION COMMAND

Airlift capability........ 121
Airlift fleet 112
Command and control of assets........ 113
Committee questions, additional 125
Four key issues........ 112
Just Cause operation 112
Maritime industry........ 112
National defense reserve fleet........ 119
National security sealift policy 119
Prepositioning........ 122
Sealift capabilities........ 121
U.S. control fleet 119

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26-132 (544)